

RANDOM PD ENCYCLOPEDIA – S

SELECTION BY MAN.

Project Gutenberg Etext of *The Variation of Animals and Plants under Domestication Volume 2*, by Charles Darwin

SELECTION A DIFFICULT ART.

METHODICAL, UNCONSCIOUS, AND NATURAL SELECTION.

RESULTS OF METHODICAL SELECTION.

CARE TAKEN IN SELECTION.

SELECTION WITH PLANTS.

SELECTION CARRIED ON BY THE ANCIENTS AND BY SEMI-CIVILISED PEOPLE.

UNIMPORTANT CHARACTERS OFTEN ATTENDED TO.

UNCONSCIOUS SELECTION.

AS CIRCUMSTANCES SLOWLY CHANGE, SO HAVE OUR DOMESTICATED ANIMALS CHANGED THROUGH THE ACTION OF UNCONSCIOUS SELECTION.

INFLUENCE OF DIFFERENT BREEDERS ON THE SAME SUB-VARIETY.

PLANTS AS AFFECTED BY UNCONSCIOUS SELECTION.

EFFECTS OF SELECTION AS SHOWN BY THE GREAT AMOUNT OF DIFFERENCE IN THE PARTS MOST VALUED BY MAN.

The power of Selection, whether exercised by man, or brought into play under nature through the struggle for existence and the consequent survival of the fittest, absolutely depends on the variability of organic beings. Without variability nothing can be effected; slight individual differences, however, suffice for the work, and are probably the chief or sole means in the production of new species. Hence our discussion on the causes and laws of variability ought in strict order to have preceded the present subject, as well as inheritance, crossing, etc.; but practically the present arrangement has been found the most convenient. Man does not attempt to cause variability; though he unintentionally effects this by exposing organisms to new conditions of life, and by crossing breeds already formed. But variability being granted, he works wonders. Unless some degree of selection be exercised, the free commingling of the individuals of the same variety soon obliterates, as we have previously seen, the slight differences which arise, and gives uniformity of character to the whole body of individuals. In separated districts, long-continued exposure to different conditions of life may produce new races without the aid of selection; but to this subject of the direct action of the conditions of life I shall recur in a future chapter.

When animals or plants are born with some conspicuous and firmly inherited new character, selection is reduced to the preservation of such individuals, and to the subsequent prevention of crosses; so that nothing more need be said on the subject. But in the great majority of cases a new character, or some superiority in an old character, is at first faintly pronounced, and is not strongly inherited; and then the full difficulty of selection is experienced. Indomitable patience, the finest powers of discrimination, and sound judgment

must be exercised during many years. A clearly predetermined object must be kept steadily in view. Few men are endowed with all these qualities, especially with that of discriminating very slight differences; judgment can be acquired only by long experience; but if any of these qualities be wanting, the labour of a life may be thrown away. I have been astonished when celebrated breeders, whose skill and judgment have been proved by their success at exhibitions, have shown me their animals, which appeared all alike, and have assigned their reasons for matching this and that individual. The importance of the great principle of Selection mainly lies in this power of selecting scarcely appreciable differences, which nevertheless are found to be transmissible, and which can be accumulated until the result is made manifest to the eyes of every beholder.

The principle of selection may be conveniently divided into three kinds. **METHODICAL SELECTION** is that which guides a man who systematically endeavours to modify a breed according to some predetermined standard. **UNCONSCIOUS SELECTION** is that which follows from men naturally preserving the most valued and destroying the less valued individuals, without any thought of altering the breed; and undoubtedly this process slowly works great changes. Unconscious selection graduates into methodical, and only extreme cases can be distinctly separated; for he who preserves a useful or perfect animal will generally breed from it with the hope of getting offspring of the same character; but as long as he has not a predetermined purpose to improve the breed, he may be said to be selecting unconsciously. (20/1. The term "unconscious selection" has been objected to as a contradiction; but see some excellent observations on this head by Prof. Huxley ('Nat. Hist. Review' October 1864 page 578) who remarks that when the wind heaps up sand-dunes it sifts and **UNCONSCIOUSLY SELECTS** from the gravel on the beach grains of sand of equal size.) Lastly, we have **NATURAL SELECTION**, which implies that the individuals which are best fitted for the complex, and in the course of ages changing conditions to which they are exposed, generally survive and procreate their kind. With domestic productions, natural selection comes to a certain extent into action, independently of, and even in opposition to, the will of man.

METHODICAL SELECTION.

What man has effected within recent times in England by methodical selection is clearly shown by our exhibitions of improved quadrupeds and fancy birds. With respect to cattle, sheep, and pigs, we owe their great improvement to a long series of well-known names--Bakewell, Coiling, Ellman, Bates, Jonas Webb, Lords Leicester and Western, Fisher Hobbs, and others. Agricultural writers are unanimous on the power of selection: any number of statements to this effect could be quoted; a few will suffice. Youatt, a sagacious and experienced observer, writes (20/2. 'On Sheep' 1838 page 60.) the principle of selection is "that which enables the agriculturist, not only to modify the character of his flock, but to change it altogether." A great breeder of Shorthorns (20/3. Mr. J. Wright on Shorthorn Cattle in 'Journal of Royal Agricult. Soc.' volume 7 pages 208, 209.) says, "In the anatomy of the shoulder modern breeders have made great improvement on the Ketton shorthorns by correcting the defect in the knuckle or shoulder-joint, and by laying the

top of the shoulder more snugly in the crop, and thereby filling up the hollow behind it...The eye has its fashion at different periods: at one time the eye high and outstanding from the head, and at another time the sleepy eye sunk into the head; but these extremes have merged into the medium of a full, clear and prominent eye with a placid look."

Again, hear what an excellent judge of pigs (20/4. H.D. Richardson 'On Pigs' 1847 page 44.) says: "The legs should be no longer than just to prevent the animal's belly from trailing on the ground. The leg is the least profitable portion of the hog, and we therefore require no more of it than is absolutely necessary for the support of the rest." Let any one compare the wild-boar with any improved breed, and he will see how effectually the legs have been shortened.

Few persons, except breeders, are aware of the systematic care taken in selecting animals, and of the necessity of having a clear and almost prophetic vision into futurity. Lord Spencer's skill and judgment were well known; and he writes (20/5. 'Journal of Royal Agricult. Soc.' volume 1 page 24.), "It is therefore very desirable, before any man commences to breed either cattle or sheep, that he should make up his mind to the shape and qualities he wishes to obtain, and steadily pursue this object." Lord Somerville, in speaking of the marvellous improvement of the New Leicester sheep, effected by Bakewell and his successors, says, "It would seem as if they had first drawn a perfect form, and then given it life." Youatt (20/6. 'On Sheep' pages 520, 319.) urges the necessity of annually drafting each flock, as many animals will certainly degenerate "from the standard of excellence which the breeder has established in his own mind." Even with a bird of such little importance as the canary, long ago (1780-1790) rules were established, and a standard of perfection was fixed according to which the London fanciers tried to breed the several sub-varieties. (20/7. Loudon's 'Mag. of Nat. Hist.' volume 8 1835 page 618.) A great winner of prizes at the Pigeon-shows (20/8. 'A treatise on the Art of Breeding the Almond Tumbler' 1851 page 9.), in describing the short-faced Almond Tumbler, says, "There are many first-rate fanciers who are particularly partial to what is called the goldfinch-beak, which is very beautiful; others say, take a full-size round cherry then take a barleycorn, and judiciously placing and thrusting it into the cherry, form as it were your beak; and that is not all, for it will form a good head and beak, provided, as I said before, it is judiciously done; others take an oat; but as I think the goldfinch-beak the handsomest, I would advise the inexperienced fancier to get the head of a goldfinch, and keep it by him for his observation." Wonderfully different as are the beaks of the rock pigeon and goldfinch, the end has undoubtedly been nearly gained, as far as external shape and proportions are concerned.

Not only should our animals be examined with the greatest care whilst alive, but, as Anderson remarks (20/9. 'Recreations in Agriculture' volume 2 page 409.) their carcasses should be scrutinised, "so as to breed from the descendants of such only as, in the language of the butcher, cut up well." The "grain of the meat" in cattle, and its being well marbled with fat (20/10. 'Youatt on Cattle' pages 191, 227.), and the greater or less accumulation of fat in the abdomen of our sheep, have been attended to with success. So with poultry, a writer (20/11. Ferguson 'Prize Poultry' 1854 page 208.), speaking

of Cochin-China fowls, which are said to differ much in the quality of their flesh, says, "the best mode is to purchase two young brother-cocks, kill, dress, and serve up one; if he be indifferent, similarly dispose of the other, and try again; if, however, he be fine and well-flavoured, his brother will not be amiss for breeding purposes for the table."

The great principle of the division of labour has been brought to bear on selection. In certain districts (20/12. Wilson in 'Transact. Highland Agricult. Soc.' quoted in 'Gardener's Chronicle' 1844 page 29.) "the breeding of bulls is confined to a very limited number of persons, who by devoting their whole attention to this department, are able from year to year to furnish a class of bulls which are steadily improving the general breed of the district." The rearing and letting of choice rams has long been, as is well known, a chief source of profit to several eminent breeders. In parts of Germany this principle is carried with merino sheep to an extreme point. (20/13. Simmonds quoted in 'Gardener's Chronicle' 1855 page 637. And for the second quotation see 'Youatt on Sheep' page 171.) So "important is the proper selection of breeding animals considered, that the best flock-masters do not trust to their own judgment or to that of their shepherds, but employ persons called 'sheep-classifiers' who make it their special business to attend to this part of the management of several flocks, and thus to preserve, or if possible to improve, the best qualities of both parents in the lambs." In Saxony, "when the lambs are weaned, each in his turn is placed upon a table that his wool and form may be minutely observed. The finest are selected for breeding and receive a first mark. When they are one year old, and prior to shearing them, another close examination of those previously marked takes place: those in which no defect can be found receive a second mark, and the rest are condemned. A few months afterwards a third and last scrutiny is made: the prime rams and ewes receive a third and final mark, but the slightest blemish is sufficient to cause the rejection of the animal." These sheep are bred and valued almost exclusively for the fineness of their wool; and the result corresponds with the labour bestowed on their selection. Instruments have been invented to measure accurately the thickness of the fibres; and "an Austrian fleece has been produced of which twelve hairs equalled in thickness one from a Leicester sheep."

Throughout the world, wherever silk is produced, the greatest care is bestowed on selecting the cocoons from which the moths for breeding are to be reared. A careful cultivator (20/14. Robinet 'Vers a Soie' 1848 page 271.) likewise examines the moths themselves, and destroys those that are not perfect. But what more immediately concerns us is that certain families in France devote themselves to raising eggs for sale. (20/15. Quatrefages 'Les Maladies du Ver a Soie' 1859 page 101.) In China, near Shanghai, the inhabitants of two small districts have the privilege of raising eggs for the whole surrounding country, and that they may give up their whole time to this business, they are interdicted by law from producing silk. (20/16. M. Simon in 'Bull. de la Soc. d'Acclimat.' tome 9 1862 page 221.)

The care which successful breeders take in matching their birds is surprising. Sir John Sebright, whose fame is perpetuated by the "Sebright Bantam," used to spend "two and three days in examining, consulting, and disputing with a

friend which were the best of five or six birds." (20/17. 'The Poultry Chronicle' volume 1 1854 page 607.) Mr. Bult, whose pouter-pigeons won so many prizes, and were exported to North America under the charge of a man sent on purpose, told me that he always deliberated for several days before he matched each pair. Hence we can understand the advice of an eminent fancier, who writes (20/18. J.M. Eaton 'A Treatise on Fancy Pigeons' 1852 page 14 and 'A Treatise on the Almond Tumbler' 1851 page 11.) "I would here particularly guard you against having too great a variety of pigeons, otherwise you will know a little of all, but nothing about one as it ought to be known." Apparently it transcends the power of the human intellect to breed all kinds: "it is possible that there may be a few fanciers that have a good general knowledge of fancy pigeons; but there are many more who labour under the delusion of supposing they know what they do not." The excellence of one sub-variety, the Almond Tumbler, lies in the plumage, carriage, head, beak, and eye; but it is too presumptuous in the beginner to try for all these points. The great judge above quoted says, "There are some young fanciers who are over-covetous, who go for all the above five properties at once; they have their reward by getting nothing." We thus see that breeding even fancy pigeons is no simple art: we may smile at the solemnity of these precepts, but he who laughs will win no prizes.

What methodical selection has effected for our animals is sufficiently proved, as already remarked, by our Exhibitions. So greatly were the sheep belonging to some of the earlier breeders, such as Bakewell and Lord Western, changed, that many persons could not be persuaded that they had not been crossed. Our pigs, as Mr. Corringham remarks (20/19. 'Journal Royal Agricultural Soc.' volume 6 page 22.) during the last twenty years have undergone, through rigorous selection together with crossing, a complete metamorphosis. The first exhibition for poultry was held in the Zoological Gardens in 1845; and the improvement effected since that time has been great. As Mr. Bailey, the great judge, remarked to me, it was formerly ordered that the comb of the Spanish cock should be upright, and in four or five years all good birds had upright combs; it was ordered that the Polish cock should have no comb or wattles, and now a bird thus furnished would be at once disqualified; beards were ordered, and out of fifty-seven pens lately (1860) exhibited at the Crystal Palace, all had beards. So it has been in many other cases. But in all cases the judges order only what is occasionally produced and what can be improved and rendered constant by selection. The steady increase in weight during the last few years in our fowls, turkeys, ducks, and geese is notorious; "six-pound ducks are now common, whereas four pounds was formerly the average." As the time required to make a change has not often been recorded, it may be worth mentioning that it took Mr. Wicking thirteen years to put a clean white head on an almond tumbler's body, "a triumph," says another fancier, "of which he may be justly proud." (20/20. 'Poultry Chronicle' volume 2 1855 page 596.)

Mr. Tollet, of Betley Hall, selected cows, and especially bulls, descended from good milkers, for the sole purpose of improving his cattle for the production of cheese; he steadily tested the milk with the lactometer, and in eight years he increased, as I was informed by him, the product in proportion of four to three. Here is a curious case (20/21. Isid. Geoffroy St.-Hilaire 'Hist. Nat. Gen.' tome 3 page 254.) of steady but slow progress, with the end

not as yet fully attained: in 1784 a race of silkworms was introduced into France, in which one hundred in the thousand failed to produce white cocoons; but now after careful selection during sixty-five generations, the proportion of yellow cocoons has been reduced to thirty-five in the thousand.

With plants selection has been followed with the same good result as with animals. But the process is simpler, for plants in the great majority of cases bear both sexes. Nevertheless, with most kinds it is necessary to take as much care to prevent crosses as with animals or unisexual plants; but with some plants, such as peas, this care is not necessary. With all improved plants, excepting of course those which are propagated by buds, cuttings, etc., it is almost indispensable to examine the seedlings and destroy those which depart from the proper type. This is called "roguing," and is, in fact, a form of selection, like the rejection of inferior animals. Experienced horticulturists and agriculturists incessantly urge every one to preserve the finest plants for the production of seed.

Although plants often present much more conspicuous variations than animals, yet the closest attention is generally requisite to detect each slight and favourable change. Mr. Masters relates (20/22. 'Gardener's Chronicle' 1850 page 198.) how "many a patient hour was devoted," whilst he was young, to the detection of differences in peas intended for seed. Mr. Barnet (20/23. 'Transact. Hort. Soc.' volume 6 page 152.) remarks that the old scarlet American strawberry was cultivated for more than a century without producing a single variety; and another writer observes how singular it was that when gardeners first began to attend to this fruit it began to vary; the truth no doubt being that it had always varied, but that, until slight variations were selected and propagated by seed, no conspicuous result was obtained. The finest shades of difference in wheat have been discriminated and selected with almost as much care as, in the case of the higher animals, for instance by Col. Le Couteur and more especially by Major Hallett.

It may be worth while to give a few examples of methodical selection with plants; but in fact the great improvement of all our anciently cultivated plants may be attributed to selection long carried on, in part methodically, and in part unconsciously. I have shown in a former chapter how the weight of the gooseberry has been increased by systematic selection and culture. The flowers of the Heartsease have been similarly increased in size and regularity of outline. With the Cineraria, Mr. Glenny (20/24. 'Journal of Horticulture' 1862 page 369.) "was bold enough when the flowers were ragged and starry and ill defined in colour, to fix a standard which was then considered outrageously high and impossible, and which, even if reached, it was said, we should be no gainers by, as it would spoil the beauty of the flowers. He maintained that he was right; and the event has proved it to be so." The doubling of flowers has several times been effected by careful selection: the Rev. W. Williamson (20/25 'Transact. Hort. Soc.' volume 4 page 381.), after sowing during several years seed of *Anemone coronaria*, found a plant with one additional petal; he sowed the seed of this, and by perseverance in the same course obtained several varieties with six or seven rows of petals. The single Scotch rose was doubled, and yielded eight good varieties in nine or ten years. (20/26. 'Transact. Hort. Soc.' volume 4 page 285.) The Canterbury bell

(*Campanula medium*) was doubled by careful selection in four generations. (20/27. Rev. W. Bromehead in 'Gardener's Chronicle' 1857 page 550.) In four years Mr. Buckman (20/28. 'Gardener's Chronicle' 1862 page 721.), by culture and careful selection, converted parsnips, raised from wild seed, into a new and good variety. By selection during a long course of years, the early maturity of peas has been hastened by between ten and twenty-one days. (20/29. Dr. Anderson in 'The Bee' volume 6 page 96; Mr. Barnes in 'Gardener's Chronicle' 1844 page 476.) A more curious case is offered by the beet plant, which since its cultivation in France, has almost exactly doubled its yield of sugar. This has been effected by the most careful selection; the specific gravity of the roots being regularly tested, and the best roots saved for the production of seed. (20/30. Godron 'De l'Espece' 1859 tome 2 page 69; 'Gardener's Chronicle' 1854 page 258.)

SELECTION BY ANCIENT AND SEMI-CIVILISED PEOPLE.

In attributing so much importance to the selection of animals and plants, it may be objected, that methodical selection would not have been carried on during ancient times. A distinguished naturalist considers it as absurd to suppose that semi-civilised people should have practised selection of any kind. Undoubtedly the principle has been systematically acknowledged and followed to a far greater extent within the last hundred years than at any former period, and a corresponding result has been gained; but it would be a greater error to suppose, as we shall immediately see, that its importance was not recognised and acted on during the most ancient times, and by semi-civilised people. I should premise that many facts now to be given only show that care was taken in breeding; but when this is the case, selection is almost sure to be practised to a certain extent. We shall hereafter be enabled better to judge how far selection, when only occasionally carried on, by a few of the inhabitants of a country, will slowly produce a great effect.

In a well-known passage in the thirtieth chapter of Genesis, rules are given for influencing, as was then thought possible, the colour of sheep; and speckled and dark breeds are spoken of as being kept separate. By the time of David the fleece was likened to snow. Youatt (20/31. 'On Sheep' page 18.), who has discussed all the passages in relation to breeding in the Old Testament, concludes that at this early period "some of the best principles of breeding must have been steadily and long pursued." It was ordered, according to Moses, that "Thou shalt not let thy cattle gender with a diverse kind;" but mules were purchased (20/32. Volz 'Beitrag zur Kulturgeschichte' 1852 s. 47.) so that at this early period other nations must have crossed the horse and ass. It is said (20/33. Mitford 'History of Greece' volume 1 page 73.) that Erichthonius, some generations before the Trojan war, had many brood-mares, "which by his care and judgment in the choice of stallions produced a breed of horses superior to any in the surrounding countries." Homer (Book 5) speaks of Aeneas' horses as bred from mares which were put to the steeds of Laomedon. Plato, in his 'Republic' says to Glaucus, "I see that you raise at your house a great many dogs for the chase. Do you take care about breeding and pairing them? Among animals of good blood, are there not always some which are superior to the rest?" To which Glaucus answers in the affirmative. (20/34. Dr. Dally translated in 'Anthropological Review' May 1864 page 101.) Alexander

the Great selected the finest Indian cattle to send to Macedonia to improve the breed. (20/35. Volz 'Beitrage' etc. 1852 s. 80.) According to Pliny (20/36 'History of the World' chapter 45.), King Pyrrhus had an especially valuable breed of oxen: and he did not suffer the bulls and cows to come together till four years old, that the breed might not degenerate. Virgil, in his Georgics (lib. 3), gives as strong advice as any modern agriculturist could do, carefully to select the breeding stock; "to note the tribe, the lineage, and the sire; whom to reserve for husband of the herd;"--to brand the progeny;--to select sheep of the purest white, and to examine if their tongues are swarthy. We have seen that the Romans kept pedigrees of their pigeons, and this would have been a senseless proceeding had not great care been taken in breeding them. Columella gives detailed instructions about breeding fowls: "Let the breeding hens therefore be of a choice colour, a robust body, square-built, full-breasted, with large heads, with upright and bright-red combs. Those are believed to be the best bred which have five toes." (20/37. 'Gardener's Chronicle' 1848 page 323.) According to Tacitus, the Celts attended to the races of their domestic animals; and Caesar states that they paid high prices to merchants for fine imported horses. (20/38. Reynier 'De l'Economie des Celtes' 1818 pages 487, 503.) In regard to plants, Virgil speaks of yearly culling the largest seeds; and Celsus says, "where the corn and crop is but small, we must pick out the best ears of corn, and of them lay up our seed separately by itself." (20/39. Le Couteur on 'Wheat' page 15.)

Coming down the stream of time, we may be brief. At about the beginning of the ninth century Charlemagne expressly ordered his officers to take great care of his stallions; and if any proved bad or old, to forewarn him in good time before they were put to the mares. (20/40. Michel 'Des Haras' 1861 page 84.) Even in a country so little civilised as Ireland during the ninth century, it would appear from some ancient verses (20/41. Sir W. Wilde an 'Essay on Unmanufactured Animal Remains' etc. 1860 page 11.), describing a ransom demanded by Cormac, that animals from particular places, or having a particular character, were valued. Thus it is said,--

Two pigs of the pigs of Mac Lir,
A ram and ewe both round and red,
I brought with me from Aengus.
I brought with me a stallion and a mare
From the beautiful stud of Manannan,
A bull and a white cow from Druim Cain.

Athelstan, in 930, received running-horses as a present from Germany; and he prohibited the exportation of English horses. King John imported "one hundred chosen stallions from Flanders." (20/42. Col. Hamilton Smith 'Nat. Library' volume 12 Horses, pages 135, 140.) On June 16th, 1305, the Prince of Wales wrote to the Archbishop of Canterbury, begging for the loan of any choice stallion, and promising its return at the end of the season. (20/43. Michel 'Des Haras' page 90.) There are numerous records at ancient periods in English history of the importation of choice animals of various kinds, and of foolish laws against their exportation. In the reigns of Henry VII. and VIII. it was ordered that the magistrates, at Michaelmas, should scour the heaths and commons, and destroy all mares beneath a certain size. (20/44. Mr. Baker

'History of the Horse' 'Veterinary' volume 13 page 423.) Some of our earlier kings passed laws against the slaughtering rams of any good breed before they were seven years old, so that they might have time to breed. In Spain Cardinal Ximenes issued, in 1509, regulations on the SELECTION of good rams for breeding. (20/45. M. l'Abbe Carlier in 'Journal de Physique' volume 24 1784 page 181; this memoir contains much information on the ancient selection of sheep; and is my authority for rams not being killed young in England.)

The Emperor Akbar Khan before the year 1600 is said to have "wonderfully improved" his pigeons by crossing the breeds; and this necessarily implies careful selection. About the same period the Dutch attended with the greatest care to the breeding of these birds. Belon in 1555 says that good managers in France examined the colour of their goslings in order to get geese of a white colour and better kinds. Markham in 1631 tells the breeder "to elect the largest and goodliest conies," and enters into minute details. Even with respect to seeds of plants for the flower-garden, Sir J. Hanmer writing about the year 1660 (20/46. 'Gardener's Chronicle' 1843 page 389.) says, in "choosing seed, the best seed is the most weighty, and is had from the lustiest and most vigorous stems;" and he then gives rules about leaving only a few flowers on plants for seed; so that even such details were attended to in our flower-gardens two hundred years ago. In order to show that selection has been silently carried on in places where it would not have been expected, I may add that in the middle of the last century, in a remote part of North America, Mr. Cooper improved by careful selection all his vegetables, "so that they were greatly superior to those of any other person. When his radishes, for instance, are fit for use, he takes ten or twelve that he most approves, and plants them at least 100 yards from others that blossom at the same time. In the same manner he treats all his other plants, varying the circumstances according to their nature." (20/47. 'Communications to Board of Agriculture' quoted in Dr. Darwin 'Phytologia' 1800 page 451.)

In the great work on China published in the last century by the Jesuits, and which is chiefly compiled from ancient Chinese encyclopaedias, it is said that with sheep "improving the breed consists in choosing with particular care the lambs which are destined for propagation, in nourishing them well, and in keeping the flocks separate." The same principles were applied by the Chinese to various plants and fruit-trees. (20/48. 'Memoire sur les Chinois' 1786 tome 11 page 55; tome 5 page 507.) An imperial edict recommends the choice of seed of remarkable size; and selection was practised even by imperial hands, for it is said that the Ya-mi, or imperial rice, was noticed at an ancient period in a field by the Emperor Khang-hi, was saved and cultivated in his garden, and has since become valuable from being the only kind which will grow north of the Great Wall. (20/49. 'Recherches sur l'Agriculture des Chinois' par L. D'Hervey Saint-Denys 1850 page 229. With respect to Khang-hi see Huc's 'Chinese Empire' page 311.) Even with flowers, the tree paeony (*P. moutan*) has been cultivated, according to Chinese traditions, for 1400 years; between 200 and 300 varieties have been raised, which are cherished like tulips formerly were by the Dutch. (20/50. Anderson in 'Linn. Transact.' volume 12 page 253.)

Turning now to semi-civilised people and to savages: it occurred to me, from what I had seen of several parts of South America, where fences do not exist,

and where the animals are of little value, that there would be absolutely no care in breeding or selecting them; and this to a large extent is true. Roulin (20/51. 'Mem. de l'Acad.' (divers savants), tome 6 1835 page 333.), however, describes in Columbia a naked race of cattle, which are not allowed to increase, on account of their delicate constitution. According to Azara (20/52. 'Des Quadrupedes du Paraguay' 1801 tome 2 pages 333, 371.) horses are often born in Paraguay with curly hair; but, as the natives do not like them, they are destroyed. On the other hand, Azara states that a hornless bull, born in 1770, was preserved and propagated its race. I was informed of the existence in Banda Oriental of a breed with reversed hair; and the extraordinary niata cattle first appeared and have since been kept distinct in La Plata. Hence certain conspicuous variations have been preserved, and others have been habitually destroyed, in these countries, which are so little favourable for careful selection. We have also seen that the inhabitants sometimes introduce fresh cattle on their estates to prevent the evil effects of close interbreeding. On the other hand, I have heard on reliable authority that the Gauchos of the Pampas never take any pains in selecting the best bulls or stallions for breeding; and this probably accounts for the cattle and horses being remarkably uniform in character throughout the immense range of the Argentine republic.

Looking to the Old World, in the Sahara Desert "The Touareg is as careful in the selection of his breeding Mahari (a fine race of the dromedary) as the Arab is in that of his horse. The pedigrees are handed down, and many a dromedary can boast a genealogy far longer than the descendants of the Darley Arabian." (20/53. 'The Great Sahara' by the Rev. H.B. Tristram 1860 page 238.) According to Pallas the Mongolians endeavour to breed the Yaks or horse-tailed buffaloes with white tails, for these are sold to the Chinese mandarins as fly-flappers; and Moorcroft, about seventy years after Pallas, found that white-tailed animals were still selected for breeding. (20/54. Pallas 'Act. Acad. St. Petersburg' 1777 page 249. Moorcroft and Trebeck 'Travels in the Himalayan Provinces' 1841.)

We have seen in the chapter on the Dog that savages in different parts of North America and in Guiana cross their dogs with wild Canidae, as did the ancient Gauls, according to Pliny. This was done to give their dogs strength and vigour, in the same way as the keepers in large warrens now sometimes cross their ferrets (as I have been informed by Mr. Yarrell) with the wild polecat, "to give them more devil." According to Varro, the wild ass was formerly caught and crossed with the tame animal to improve the breed, in the same manner as at the present day the natives of Java sometimes drive their cattle into the forests to cross with the wild Banteng (*Bos sondaicus*). (20/55. Quoted from Raffles in the 'Indian Field' 1859 page 196: for Varro see Pallas ut supra.) In Northern Siberia, among the Ostyaks, the dogs vary in markings in different districts, but in each place they are spotted black and white in a remarkably uniform manner (20/56. Erman 'Travels in Siberia' English translation volume 1 page 453.); and from this fact alone we may infer careful breeding, more especially as the dogs of one locality are famed throughout the country for their superiority. I have heard of certain tribes of Esquimaux who take pride in their teams of dogs being uniformly coloured. In Guiana, as Sir H. Schomburgk informs me (20/57. See also 'Journal of R.

Geograph. Soc.' volume 13 part 1 page 65.), the dogs of the Turuma Indians are highly valued and extensively bartered: the price of a good one is the same as that given for a wife: they are kept in a sort of cage, and the Indians "take great care when the female is in season to prevent her uniting with a dog of an inferior description." The Indians told Sir Robert that, if a dog proved bad or useless, he was not killed, but was left to die from sheer neglect. Hardly any nation is more barbarous than the Fuegians, but I hear from Mr. Bridges, the Catechist to the Mission, that, "when these savages have a large, strong, and active bitch, they take care to put her to a fine dog, and even take care to feed her well, that her young may be strong and well favoured."

In the interior of Africa, negroes, who have not associated with white men, show great anxiety to improve their animals; they "always choose the larger and stronger males for stock;" the Malakolo were much pleased at Livingstone's promise to send them a bull, and some Bakalolo carried a live cock all the way from Loanda into the interior. (20/58. Livingstone 'First Travels' pages 191, 439, 565; see also 'Expedition to the Zambesi' 1865 page 495, for an analogous case respecting a good breed of goats.) At Falaba Mr. Winwood Reade noticed an unusually fine horse, and the negro King informed him that "the owner was noted for his skill in breeding horses." Further south on the same continent, Andersson states that he has known a Damara give two fine oxen for a dog which struck his fancy. The Damaras take great delight in having whole droves of cattle of the same colour, and they prize their oxen in proportion to the size of their horns. "The Namaquas have a perfect mania for a uniform team; and almost all the people of Southern Africa value their cattle next to their women, and take a pride in possessing animals that look high-bred. They rarely or never make use of a handsome animal as a beast of burden." (20/59. Andersson 'Travels in South Africa' pages 232, 318, 319.) The power of discrimination which these savages possess is wonderful, and they can recognise to which tribe any cattle belong. Mr. Andersson further informs me that the natives frequently match a particular bull with a particular cow.

The most curious case of selection by semi-civilised people, or indeed by any people, which I have found recorded, is that given by Garcilazo de la Vega, a descendant of the Incas, as having been practised in Peru before the country was subjugated by the Spaniards. (20/60. Dr. Vavasseur in 'Bull. de La Soc. d'Acclimat.' tome 8 1861 page 136.) The Incas annually held great hunts, when all the wild animals were driven from an immense circuit to a central point. The beasts of prey were first destroyed as injurious. The wild Guanacos and Vicunas were sheared; the old males and females killed, and the others set at liberty. The various kinds of deer were examined; the old males and females were likewise killed, "but the young females, with a certain number of males, selected from the most beautiful and strong," were given their freedom. Here, then, we have selection by man aiding natural selection. So that the Incas followed exactly the reverse system of that which our Scottish sportsman are accused of following, namely, of steadily killing the finest stags, thus causing the whole race to degenerate. (20/61. 'The Natural History of Dee Side' 1855 page 476.) In regard to the domesticated llamas and alpacas, they were separated in the time of the Incas according to colour: and if by chance one in a flock was born of the wrong colour, it was eventually put into another flock.

In the genus *Auchenia* there are four forms,--the Guanaco and Vicuna, found wild and undoubtedly distinct species; the Llama and Alpaca, known only in a domesticated condition. These four animals appear so different, that most naturalists, especially those who have studied these animals in their native country, maintain that they are specifically distinct, notwithstanding that no one pretends to have seen a wild llama or alpaca. Mr. Ledger, however, who has closely studied these animals both in Peru and during their exportation to Australia, and who has made many experiments on their propagation, adduces arguments (20/62. 'Bull. de la Soc. d'Acclimat.' tome 7 1860 page 457.) which seem to me conclusive, that the llama is the domesticated descendant of the guanaco, and the alpaca of the vicuna. And now that we know that these animals were systematically bred and selected many centuries ago, there is nothing surprising in the great amount of change which they have undergone.

It appeared to me at one time probable that, though ancient and semi-civilised people might have attended to the improvement of their more useful animals in essential points, yet that they would have disregarded unimportant characters. But human nature is the same throughout the world: fashion everywhere reigns supreme, and man is apt to value whatever he may chance to possess. We have seen that in South America the niata cattle, which certainly are not made useful by their shortened faces and upturned nostrils, have been preserved. The Damaras of South Africa value their cattle for uniformity of colour and enormously long horns. And I will now show that there is hardly any peculiarity in our most useful animals which, from fashion, superstition, or some other motive, has not been valued, and consequently preserved. With respect to cattle, "an early record," according to Youatt (20/63. 'Cattle' page 48.) "speaks of a hundred white cows with red ears being demanded as a compensation by the princes of North and South Wales. If the cattle were of a dark or black colour, 150 were to be presented." So that colour was attended to in Wales before its subjugation by England. In Central Africa, an ox that beats the ground with its tail is killed; and in South Africa some of the Damaras will not eat the flesh of a spotted ox. The Kaffirs value an animal with a musical voice; and "at a sale in British Kaffraria the low "of a heifer excited so much admiration that a sharp competition sprung up for her possession, and she realised a considerable price." (20/64. Livingstone 'Travels' page 576; Andersson 'Lake Ngami' 1856 page 222. With respect to the sale in Kaffraria see 'Quarterly Review' 1860 page 139.) With respect to sheep, the Chinese prefer rams without horns; the Tartars prefer them with spirally wound horns, because the hornless are thought to lose courage. (20/65. 'Memoire sur les Chinois' by the Jesuits 1786 tome 11 page 57.) Some of the Damaras will not eat the flesh of hornless sheep. In regard to horses, at the end of the fifteenth century animals of the colour described as liart pomme were most valued in France. The Arabs have a proverb, "Never buy a horse with four white feet, for he carries his shroud with him" (20/66. F. Michel 'Des Haras' pages 47, 50.); the Arabs also, as we have seen, despise dun-coloured horses. So with dogs, Xenophon and others at an ancient period were prejudiced in favour of certain colours; and "white or slate-coloured hunting dogs were not esteemed." (20/67. Col. Hamilton Smith 'Dogs' in 'Nat. Lib.' volume 10 page 103.)

Turning to poultry, the old Roman gourmands thought that the liver of a white goose was the most savoury. In Paraguay black-skinned fowls are kept because they are thought to be more productive, and their flesh the most proper for invalids. (20/68. Azara 'Quadrupedes du Paraguay' tome 2 page 324.) In Guiana, as I am informed by Sir R. Schomburgk, the aborigines will not eat the flesh or eggs of the fowl, but two races are kept distinct merely for ornament. In the Philippines, no less than nine sub-varieties of the game-cock are kept and named, so that they must be separately bred.

At the present time in Europe, the smallest peculiarities are carefully attended to in our most useful animals, either from fashion, or as a mark of purity of blood. Many examples could be given; two will suffice. "In the Western counties of England the prejudice against a white pig is nearly as strong as against a black one in Yorkshire." In one of the Berkshire sub-breeds, it is said, "the white should be confined to four white feet, a white spot between the eyes, and a few white hairs behind each shoulder." Mr. Saddler possessed three hundred pigs, every one of which was marked in this manner." (20/69. Sidney's edition of Youatt 1860 pages 24, 25.) Marshall, towards the close of the last century, in speaking of a change in one of the Yorkshire breeds of cattle, says the horns have been considerably modified, as "a clean, small, sharp horn has been FASHIONABLE for the last twenty years." (20/70. 'Rural Economy of Yorkshire' volume 2 page 182.) In a part of Germany the cattle of the Race de Gfoehl are valued for many good qualities, but they must have horns of a particular curvature and tint, so much so that mechanical means are applied if they take a wrong direction; but the inhabitants "consider it of the highest importance that the nostrils of the bull should be flesh-coloured, and the eyelashes light; this is an indispensable condition. A calf with blue nostrils would not be purchased, or purchased at a very low price." (20/71. Moll et Gayot 'Du Boeuf' 1860 page 547.) Therefore let no man say that any point or character is too trifling to be methodically attended to and selected by breeders.

UNCONSCIOUS SELECTION.

By this term I mean, as already more than once explained, the preservation by man of the most valued, and the destruction of the least valued individuals, without any conscious intention on his part of altering the breed. It is difficult to offer direct proofs of the results which follow from this kind of selection; but the indirect evidence is abundant. In fact, except that in the one case man acts intentionally, and in the other unintentionally, there is little difference between methodical and unconscious selection. In both cases man preserves the animals which are most useful or pleasing to him, and destroys or neglects the others. But no doubt a far more rapid result follows from methodical than from unconscious selection. The "roguing" of plants by gardeners, and the destruction by law in Henry VIII.'s reign of all undersized mares, are instances of a process the reverse of selection in the ordinary sense of the word, but leading to the same general result. The influence of the destruction of individuals having a particular character is well shown by the necessity of killing every lamb with a trace of black about it, in order to keep the flock white; or again, by the effects on the average height of the men of France of the destructive wars of Napoleon, by which many

tall men were killed, the short ones being left to be the fathers of families. This at least is the conclusion of some of those who have closely studied the effects of the conscription; and it is certain that since Napoleon's time the standard for the army has been lowered two or three times.

Unconscious selection blends with methodical, so that it is scarcely possible to separate them. When a fancier long ago first happened to notice a pigeon with an unusually short beak, or one with the tail-feathers unusually developed, although he bred from these birds with the distinct intention of propagating the variety, yet he could not have intended to make a short-faced tumbler or a fantail, and was far from knowing that he had made the first step towards this end. If he could have seen the final result, he would have been struck with astonishment, but, from what we know of the habits of fanciers, probably not with admiration. Our English carriers, barbs, and short-faced tumblers have been greatly modified in the same manner, as we may infer both from the historical evidence given in the chapters on the Pigeon, and from the comparison of birds brought from distant countries.

So it has been with dogs; our present fox-hounds differ from the old English hound; our greyhounds have become lighter: the Scotch deer-hound has been modified, and is now rare. Our bulldogs differ from those which were formerly used for baiting bulls. Our pointers and Newfoundlands do not closely resemble any native dog now found in the countries whence they were brought. These changes have been effected partly by crosses; but in every case the result has been governed by the strictest selection. Nevertheless, there is no reason to suppose that man intentionally and methodically made the breeds exactly what they now are. As our horses became fleeter, and the country more cultivated and smoother, fleeter fox-hounds were desired and produced, but probably without any one distinctly foreseeing what they would become. Our pointers and setters, the latter almost certainly descended from large spaniels, have been greatly modified in accordance with fashion and the desire for increased speed. Wolves have become extinct, and so has the wolf-dog; deer have become rarer, bulls are no longer baited, and the corresponding breeds of the dog have answered to the change. But we may feel almost sure that when, for instance, bulls were no longer baited, no man said to himself, I will now breed my dogs of smaller size, and thus create the present race. As circumstances changed, men unconsciously and slowly modified their course of selection.

With racehorses selection for swiftness has been followed methodically, and our horses now easily surpass their progenitors. The increased size and different appearance of the English racehorse led a good observer in India to ask, "Could any one in this year of 1856, looking at our racehorses, conceive that they were the result of the union of the Arab horse and the African mare?" (20/72. 'The India Sporting Review' volume 2 page 181; 'The Stud Farm' by Cecil page 58.) This change has, it is probable, been largely effected through unconscious selection, that is, by the general wish to breed as fine horses as possible in each generation, combined with training and high feeding, but without any intention to give to them their present appearance. According to Youatt (20/73. 'The Horse' page 22.), the introduction in Oliver Cromwell's time of three celebrated Eastern stallions speedily affected the

English breed; "so that Lord Harleigh, one of the old school, complained that the great horse was fast disappearing." This is an excellent proof how carefully selection must have been attended to; for without such care, all traces of so small an infusion of Eastern blood would soon have been absorbed and lost. Notwithstanding that the climate of England has never been esteemed particularly favourable to the horse, yet long-continued selection, both methodical and unconscious, together with that practised by the Arabs during a still longer and earlier period, has ended in giving us the best breed of horses in the world. Macaulay (20/74. 'History of England' volume 1 page 316.) remarks, "Two men whose authority on such subjects was held in great esteem, the Duke of Newcastle and Sir John Fenwick, pronounced that the meanest hack ever imported from Tangier would produce a finer progeny than could be expected from the best sire of our native breed. They would not readily have believed that a time would come when the princes and nobles of neighbouring lands would be as eager to obtain horses from England as ever the English had been to obtain horses from Barbary."

The London dray-horse, which differs so much in appearance from any natural species, and which from its size has so astonished many Eastern princes, was probably formed by the heaviest and most powerful animals having been selected during many generations in Flanders and England, but without the least intention or expectation of creating a horse such as we now see. If we go back to an early period of history, we behold in the antique Greek statues, as Schaaflhausen has remarked (20/75. 'Ueber Beständigkeit der Arten.'), a horse equally unlike a race or dray horse, and differing from any existing breed.

The results of unconscious selection, in an early stage, are well shown in the difference between the flocks descended from the same stock, but separately reared by careful breeders. Youatt gives an excellent instance of this fact in the sheep belonging to Messrs. Buckley and Burgess, which "have been purely bred from the original stock of Mr. Bakewell for upwards of fifty years. There is not a suspicion existing in the mind of any one at all acquainted with the subject that the owner of either flock has deviated in any one instance from the pure blood of Mr. Bakewell's flock; yet the difference between the sheep possessed by these two gentlemen is so great, that they have the appearance of being quite different varieties." (20/76. 'Youatt on Sheep' page 315.) I have seen several analogous and well marked cases with pigeons: for instance, I had a family of barbs descended from those long bred by Sir J. Sebright, and another family long bred by another fancier, and the two families plainly differed from each other. Nathusius--and a more competent witness could not be cited--observes that, though the Shorthorns are remarkably uniform in appearance (except in colour), yet the individual character and wishes of each breeder become impressed on his cattle, so that different herds differ slightly from one another. (20/77. 'Ueber Shorthorn Rindvieh' 1857 s. 51.) The Hereford cattle assumed their present well-marked character soon after the year 1769, through careful selection by Mr. Tomkins (20/78. Low 'Domesticated Animals' 1845 page 363.) and the breed has lately split into two strains--one strain having a white face, and differing slightly, it is said (20/79. 'Quarterly Review' 1849 page 392.), in some other points: but there is no reason to believe that this split, the origin of which is unknown, was intentionally made; it may with much more probability be attributed to

different breeders having attended to different points. So again, the Berkshire breed of swine in the year 1810 had greatly changed from what it was in 1780; and since 1810 at least two distinct sub-breeds have arisen bearing the same name. (20/80. H. von Nathusius 'Vorstudien...Schweineschadel' 1864 s 140.) Keeping in mind how rapidly all animals increase, and that some must be annually slaughtered and some saved for breeding, then, if the same breeder during a long course of years deliberately settles which shall be saved and which shall be killed, it is almost inevitable that his individual turn of mind will influence the character of his stock, without his having had any intention to modify the breed.

Unconscious selection in the strictest sense of the word, that is, the saving of the more useful animals and the neglect or slaughter of the less useful, without any thought of the future, must have gone on occasionally from the remotest period and amongst the most barbarous nations. Savages often suffer from famines, and are sometimes expelled by war from their own homes. In such cases it can hardly be doubted that they would save their most useful animals. When the Fuegians are hard pressed by want, they kill their old women for food rather than their dogs; for, as we were assured, "old women no use--dogs catch otters." The same sound sense would surely lead them to preserve their more useful dogs when still harder pressed by famine. Mr. Oldfield, who has seen so much of the aborigines of Australia, informs me that "they are all very glad to get a European kangaroo dog, and several instances have been known of the father killing his own infant that the mother might suckle the much-prized puppy." Different kinds of dogs would be useful to the Australian for hunting opossums and kangaroos, and to the Fuegian for catching fish and otters; and the occasional preservation in the two countries of the most useful animals would ultimately lead to the formation of two widely distinct breeds.

With plants, from the earliest dawn of civilisation, the best variety which was known would generally have been cultivated at each period and its seeds occasionally sown; so that there will have been some selection from an extremely remote period, but without any prefixed standard of excellence or thought of the future. We at the present day profit by a course of selection occasionally and unconsciously carried on during thousands of years. This is proved in an interesting manner by Oswald Heer's researches on the lake-inhabitants of Switzerland, as given in a former chapter; for he shows that the grain and seed of our present varieties of wheat, barley, oats, peas, beans, lentils, and poppy, exceed in size those which were cultivated in Switzerland during the Neolithic and Bronze periods. These ancient people, during the Neolithic period, possessed also a crab considerably larger than that now growing wild on the Jura. (20/81. See also Dr. Christ in Rutimeyer's 'Pfahlbauten' 1861 s. 226.) The pears described by Pliny were evidently extremely inferior in quality to our present pears. We can realise the effects of long-continued selection and cultivation in another way, for would any one in his senses expect to raise a first-rate apple from the seed of a truly wild crab, or a luscious melting pear from the wild pear? Alphonse de Candolle informs me that he has lately seen on an ancient mosaic at Rome a representation of the melon; and as the Rotnans, who were such gourmands, are silent on this fruit, he infers that the melon has been greatly ameliorated since the classical period.

Coming to later times, Buffon (20/82. The passage is given 'Bull. Soc. d'Acclimat.' 1858 page 11.) on comparing the flowers, fruit, and vegetables which were then cultivated with some excellent drawings made a hundred and fifty years previously, was struck with surprise at the great improvement which had been effected; and remarks that these ancient flowers and vegetables would now be rejected, not only by a florist but by a village gardener. Since the time of Buffon the work of improvement has steadily and rapidly gone on. Every florist who compares our present flowers with those figured in books published not long since, is astonished at the change. A well-known amateur (20/83. 'Journal of Horticulture' 1862 page 394.), in speaking of the varieties of *Pelargonium* raised by Mr. Garth only twenty-two years before, remarks, "What a rage they excited: surely we had attained perfection, it was said; and now not one of the flowers of those days will be looked at. But none the less is the debt of gratitude which we owe to those who saw what was to be done, and did it." Mr. Paul, the well-known horticulturist, in writing of the same flower (20/84. 'Gardener's Chronicle' 1857 page 85.), says he remembers when young being delighted with the portraits in Sweet's work; "but what are they in point of beauty compared with the *Pelargoniums* of this day? Here again nature did not advance by leaps; the improvement was gradual, and if we had neglected those very gradual advances, we must have foregone the present grand results." How well this practical horticulturist appreciates and illustrates the gradual and accumulative force of selection! The *Dahlia* has advanced in beauty in a like manner; the line of improvement being guided by fashion, and by the successive modifications which the flower slowly underwent. (20/85. See Mr. Wildman's address to the Floricult. Soc. in 'Gardener's Chronicle' 1843 page 86.) A steady and gradual change has been noticed in many other flowers: thus an old florist (20/86. 'Journal of Horticulture' October 24, 1865 page 239.), after describing the leading varieties of the Pink which were grown in 1813 adds, "the pinks of those days would now be scarcely grown as border-flowers." The improvement of so many flowers and the number of the varieties which have been raised is all the more striking when we hear that the earliest known flower-garden in Europe, namely at Padua, dates only from the year 1545. (20/87. Prescott 'Hist. of Mexico' volume 2 page 61.)

EFFECTS OF SELECTION, AS SHOWN BY THE PARTS MOST VALUED BY MAN PRESENTING THE GREATEST AMOUNT OF DIFFERENCE.

The power of long-continued selection, whether methodical or unconscious, or both combined, is well shown in a general way, namely, by the comparison of the differences between the varieties of distinct species, which are valued for different parts, such as for the leaves, or stems, or tubers, the seed, or fruit, or flowers. Whatever part man values most, that part will be found to present the greatest amount of difference. With trees cultivated for their fruit, Sageret remarks that the fruit is larger than in the parent-species, whilst with those cultivated for the seed, as with nuts, walnuts, almonds, chestnuts, etc., it is the seed itself which is larger; and he accounts for this fact by the fruit in the one case, and by the seed in the other, having been carefully attended to and selected during many ages. Gallesio has made the same observation. Godron insists on the diversity of the tuber in the

potato, of the bulb in the onion, and of the fruit in the melon; and on the close similarity of the other parts in these same plants. (20/88. Sagaret 'Pomologie Physiologique' 1830 page 47; Gallesio 'Teoria della Riproduzione' 1816 page 88; Godron 'De l'Espece' 1859 tome 2 pages 63, 67, 70. In my tenth and eleventh chapters I have given details on the potato; and I can confirm similar remarks with respect to the onion. I have also shown how far Naudin concurs in regard to the varieties of the melon.)

In order to judge how far my own impression on this subject was correct, I cultivated numerous varieties of the same species close to one another. The comparison of the amount of difference between widely different organs is necessarily vague; I will therefore give the results in only a few cases. We have previously seen in the ninth chapter how greatly the varieties of the cabbage differ in their foliage and stems, which are the selected parts, and how closely they resemble one another in their flowers, capsules, and seeds. In seven varieties of the radish, the roots differed greatly in colour and shape, but no difference whatever could be detected in their foliage, flowers, or seeds. Now what a contrast is presented, if we compare the flowers of the varieties of these two plants with those of any species cultivated in our flower-gardens for ornament; or if we compare their seeds with those of the varieties of maize, peas, beans, etc., which are valued and cultivated for their seeds. In the ninth chapter it was shown that the varieties of the pea differ but little except in the tallness of the plant, moderately in the shape of the pod, and greatly in the pea itself, and these are all selected points. The varieties, however, of the *Pois sans parchemin* differ much more in their pods, and these are eaten and valued. I cultivated twelve varieties of the common bean; one alone, the Dwarf Fan, differed considerably in general appearance; two differed in the colour of their flowers, one being an albino, and the other being wholly instead of partially purple; several differed considerably in the shape and size of the pod, but far more in the bean itself, and this is the valued and selected part. Toker's bean, for instance, is twice-and-a-half as long and broad as the horse-bean, and is much thinner and of a different shape.

The varieties of the gooseberry, as formerly described, differ much in their fruit, but hardly perceptibly in their flowers or organs of vegetation. With the plum, the differences likewise appear to be greater in the fruit than in the flowers or leaves. On the other hand, the seed of the strawberry, which corresponds with the fruit of the plum, differs hardly at all; whilst every one knows how greatly the fruit--that is, the enlarged receptacle--differs in several varieties. In apples, pears, and peaches the flowers and leaves differ considerably, but not, as far as I can judge, in proportion with the fruit. The Chinese double-flowering peaches, on the other hand, show that varieties of this tree have been formed, which differ more in flower than in fruit. If, as is highly probable, the peach is the modified descent of the almond, a surprising amount of change has been effected in the same species, in the fleshy covering of the former and in the kernels of the latter.

When parts stand in close relationship to each other, such as the seed and the fleshy covering of the fruit (whatever its homological nature may be), changes in the one are usually accompanied by modifications in the other, though not

necessarily to the same degree. With the plum-tree, for instance, some varieties produce plums which are nearly alike, but include stones extremely dissimilar in shape; whilst conversely other varieties produce dissimilar fruit with barely distinguishable stones; and generally the stones, though they have never been subjected to selection, differ greatly in the several varieties of the plum. In other cases organs which are not manifestly related, through some unknown bond vary together, and are consequently liable, without any intention on man's part, to be simultaneously acted on by selection. Thus the varieties of the stock (*Matthiola*) have been selected solely for the beauty of their flowers, but the seeds differ greatly in colour and somewhat in size. Varieties of the lettuce have been selected solely on account of their leaves, yet produce seeds which likewise differ in colour. Generally, through the law of correlation, when a variety differs greatly from its fellow-varieties in any one character, it differs to a certain extent in several other characters. I observed this fact when I cultivated together many varieties of the same species, for I used first to make a list of the varieties which differed most from each other in their foliage and manner of growth, afterwards of those that differed most in their flowers, then in their seed-capsules, and lastly in their mature seed; and I found that the same names generally occurred in two, three, or four of the successive lists. Nevertheless the greatest amount of difference between the varieties was always exhibited, as far as I could judge, by that part or organ for which the plant was cultivated.

When we bear in mind that each plant was at first cultivated because useful to man, and that its variation was a subsequent, often a long subsequent, event, we cannot explain the greater amount of diversity in the valuable parts by supposing that species endowed with an especial tendency to vary in any particular manner were originally chosen. We must attribute the result to the variations in these parts having been successively preserved, and thus continually augmented; whilst other variations, excepting such as inevitably appeared through correlation, were neglected and lost. We may therefore infer that most plants might be made, through long-continued selection, to yield races as different from one another in any character as they now are in those parts for which they are valued and cultivated.

With animals we see nothing of the same kind; but a sufficient number of species have not been domesticated for a fair comparison. Sheep are valued for their wool, and the wool differs much more in the several races than the hair in cattle. Neither sheep, goats, European cattle, nor pigs are valued for their fleetness or strength; and we do not possess breeds differing in these respects like the racehorse and dray-horse. But fleetness and strength are valued in camels and dogs; and we have with the former the swift dromedary and heavy camel; with the latter the greyhound and mastiff. But dogs are valued even in a higher degree for their mental qualities and senses; and every one knows how greatly the races differ in these respects. On the other hand, where the dog is kept solely to serve for food, as in the Polynesian islands and China, it is described as an extremely stupid animal. (20/89. Godron '*De l'Espece*' tome 2 page 27.) Blumenbach remarks that "many dogs, such as the badger-dog, have a build so marked and so appropriate for particular purposes, that I should find it very difficult to persuade myself that this astonishing

figure was an accidental consequence of degeneration." (20/90. 'The Anthropological Treatises of Blumenbach' 1856 page 292.) Had Blumenbach reflected on the great principle of selection, he would not have used the term degeneration, and he would not have been astonished that dogs and other animals should become excellently adapted for the service of man.

On the whole we may conclude that whatever part or character is most valued--whether the leaves, stems, tubers, bulbs, flowers, fruit, or seed of plants, or the size, strength, fleetness, hairy covering, or intellect of animals--that character will almost invariably be found to present the greatest amount of difference both in kind and degree. And this result may be safely attributed to man having preserved during a long course of generations the variations which were useful to him, and neglected the others.

I will conclude this chapter by some remarks on an important subject. With animals such as the giraffe, of which the whole structure is admirably co-ordinated for certain purposes, it has been supposed that all the parts must have been simultaneously modified; and it has been argued that, on the principle of natural selection, this is scarcely possible. But in thus arguing, it has been tacitly assumed that the variations must have been abrupt and great. No doubt, if the neck of a ruminant were suddenly to become greatly elongated, the fore limbs and back would have to be simultaneously strengthened and modified; but it cannot be denied that an animal might have its neck, or head, or tongue, or fore-limbs elongated a very little without any corresponding modification in other parts of the body; and animals thus slightly modified would, during a dearth, have a slight advantage, and be enabled to browse on higher twigs, and thus survive. A few mouthfuls more or less every day would make all the difference between life and death. By the repetition of the same process, and by the occasional intercrossing of the survivors, there would be some progress, slow and fluctuating though it would be, towards the admirably coordinated structure of the giraffe. If the short-faced tumbler-pigeon, with its small conical beak, globular head, rounded body, short wings, and small feet--characters which appear all in harmony--had been a natural species, its whole structure would have been viewed as well fitted for its life; but in this case we know that inexperienced breeders are urged to attend to point after point, and not to attempt improving the whole structure at the same time. Look at the greyhound, that perfect image of grace, symmetry, and vigour; no natural species can boast of a more admirably co-ordinated structure, with its tapering head, slim body, deep chest, tucked-up abdomen, rat-like tail, and long muscular limbs, all adapted for extreme fleetness, and for running down weak prey. Now, from what we see of the variability of animals, and from what we know of the method which different men follow in improving their stock--some chiefly attending to one point, others to another point, others again correcting defects by crosses, and so forth--we may feel assured that if we could see the long line of ancestors of a first-rate greyhound up to its wild wolf-like progenitor, we should behold an infinite number of the finest gradations, sometimes in one character and sometimes in another, but all leading towards our present perfect type. By small and doubtful steps such as these, nature, as we may confidently believe, has progressed, on her grand march of improvement and development.

A similar line of reasoning is as applicable to separate organs as to the whole organisation. A writer (20/91. Mr. J.J. Murphy in his opening address to the Belfast Nat. Hist. Soc. as given in the 'Belfast Northern Whig' November 19, 1866. Mr. Murphy here follows the line of argument against my views previously and more cautiously given by the Rev. C. Pritchard, Pres. Royal Astronomical Soc., in his sermon Appendix page 33 preached before the British Association at Nottingham 1866.) has recently maintained that "it is probably no exaggeration to suppose that in order to improve such an organ as the eye at all, it must be improved in ten different ways at once. And the improbability of any complex organ being produced and brought to perfection in any such way is an improbability of the same kind and degree as that of producing a poem or a mathematical demonstration by throwing letters at random on a table." If the eye were abruptly and greatly modified, no doubt many parts would have to be simultaneously altered, in order that the organ should remain serviceable.

But is this the case with smaller changes? There are persons who can see distinctly only in a dull light, and this condition depends, I believe, on the abnormal sensitiveness of the retina, and is known to be inherited. Now if a bird, for instance, receive some great advantage from seeing well in the twilight, all the individuals with the most sensitive retina would succeed best and be the most likely to survive; and why should not all those which happened to have the eye itself a little larger, or the pupil capable of greater dilatation, be likewise preserved, whether or not these modifications were strictly simultaneous? These individuals would subsequently intercross and blend their respective advantages. By such slight successive changes, the eye of a diurnal bird would be brought into the condition of that of an owl, which has often been advanced as an excellent instance of adaptation. Short-sight, which is often inherited, permits a person to see distinctly a minute object at so near a distance that it would be indistinct to ordinary eyes; and here we have a capacity which might be serviceable under certain conditions, abruptly gained. The Fuegians on board the Beagle could certainly see distant objects more distinctly than our sailors with all their long practice; I do not know whether this depends upon sensitiveness or on the power of adjustment in the focus; but this capacity for distant vision might, it is probable, be slightly augmented by successive modifications of either kind. Amphibious animals which are enabled to see both in the water and in the air, require and possess, as M. Plateau has shown (20/92. On the Vision of Fishes and Amphibia, translated in 'Annals and Mag. of Nat. Hist.' volume 18 1866 page 469.), eyes constructed on the following plan: "the cornea is always flat, or at least much flattened in the front of the crystalline and over a space equal to the diameter of that lens, whilst the lateral portions may be much curved." The crystalline is very nearly a sphere, and the humours have nearly the same density as water. Now as a terrestrial animal became more and more aquatic in its habits, very slight changes, first in the curvature of the cornea or crystalline, and then in the density of the humours, or conversely, might successively occur, and would be advantageous to the animal whilst under water, without serious detriment to its power of vision in the air. It is of course impossible to conjecture by what steps the fundamental structure of the eye in the Vertebrata was originally acquired, for we know nothing about this organ in the first progenitors of the class. With respect to the lowest

animals in the scale, the transitional states through which the eye at first probably passed, can by the aid of analogy be indicated, as I have attempted to show in my 'Origin of Species.' (20/93. Sixth edition 1872 page 144.)

SHARE AND SHARE ALIKE.

Project Gutenberg's *In a Steamer Chair And Other Stories*, by Robert Barr

"The quick must haste to vengeance taste,
For time is on his head;
But he can wait at the door of fate,
Though the stay be long and the hour be late--
The dead."

Melville Hardlock stood in the centre of the room with his feet wide apart and his hands in his trousers pockets, a characteristic attitude of his. He gave a quick glance at the door, and saw with relief that the key was in the lock, and that the bolt prevented anybody coming in unexpectedly. Then he gazed once more at the body of his friend, which lay in such a helpless-looking attitude upon the floor. He looked at the body with a feeling of mild curiosity, and wondered what there was about the lines of the figure on the floor that so certainly betokened death rather than sleep, even though the face was turned away from him. He thought, perhaps, it might be the hand with its back to the floor and its palm towards the ceiling; there was a certain look of hopelessness about that. He resolved to investigate the subject some time when he had leisure. Then his thoughts turned towards the subject of murder. It was so easy to kill, he felt no pride in having been able to accomplish that much. But it was not everybody who could escape the consequences of his crime. It required an acute brain to plan after events so that shrewd detectives would be baffled. There was a complacent conceit about Melville Hardlock, which was as much a part of him as his intense selfishness, and this conceit led him to believe that the future path he had outlined for himself would not be followed by justice.

With a sigh Melville suddenly seemed to realise that while there was no necessity for undue haste, yet it was not wise to be too leisurely in some things, so he took his hands from his pockets and drew to the middle of the floor a large Saratoga trunk. He threw the heavy lid open, and in doing so showed that the trunk was empty. Picking up the body of his friend, which he was surprised to note was so heavy and troublesome to handle, he with some difficulty doubled it up so that it slipped into the trunk. He piled on top of it some old coats, vests, newspapers, and other miscellaneous articles until the space above the body was filled. Then he pressed down the lid and locked it, fastening the catches at each end. Two stout straps were now placed around the trunk and firmly buckled after he had drawn them as tight as possible. Finally he damped

the gum side of a paper label, and when he had pasted it on the end of the trunk, it showed the words in red letters, "S.S. _Platonic_, cabin, wanted." This done, Melville threw open the window to allow the fumes of chloroform to dissipate themselves in the outside air. He placed a closed, packed and labelled portmanteau beside the trunk, and a valise beside that again, which, with a couple of handbags, made up his luggage. Then he unlocked the door, threw back the bolt, and, having turned the key again from the outside, strode down the thickly-carpeted stairs of the hotel into the large pillared and marble-floored vestibule where the clerk's office was. Strolling up to the counter behind which stood the clerk of the hotel, he shoved his key across to that functionary, who placed it in the pigeon-hole marked by the number of his room.

"Did my friend leave for the West last night, do you know?"

"Yes," answered the clerk, "he paid his bill and left. Haven't you seen him since?"

"No," replied Hardlock.

"Well, he'll be disappointed about that, because he told me he expected to see you before he left, and would call up at your room later. I suppose he didn't have time. By the way, he said you were going back to England to-morrow. Is that so?"

"Yes, I sail on the _Platonic_. I suppose I can have my luggage sent to the steamer from here without further trouble?"

"Oh, certainly," answered the clerk; "how many pieces are there? It will be fifty cents each."

"Very well; just put that down in my bill with the rest of the expenses, and let me have it to-night. I will settle when I come in. Five pieces of luggage altogether."

"Very good. You'll have breakfast to-morrow, I suppose?"

"Yes, the boat does not leave till nine o'clock."

"Very well; better call you about seven, Mr. Hardlock. Will you have a carriage?"

"No, I shall walk down to the boat. You will be sure, of course, to have my things there in time."

"Oh, no fear of that. They will be on the steamer by half-past eight."

"Thank you."

As Mr. Hardlock walked down to the boat next morning he thought he had

done rather a clever thing in sending his trunk in the ordinary way to the steamer. "Most people," he said to himself, "would have made the mistake of being too careful about it. It goes along in the ordinary course of business. If anything should go wrong it will seem incredible that a sane man would send such a package in an ordinary express waggon to be dumped about, as they do dump luggage about in New York."

He stood by the gangway on the steamer watching the trunks, valises, and portmanteaus come on board.

"Stop!" he cried to the man, "that is not to go down in the hold; I want it. Don't you see it's marked 'wanted?'"

"It is very large, sir," said the man; "it will fill up a state-room by itself."

"I have the captain's room," was the answer.

So the man flung the trunk down on the deck with a crash that made even the cool Mr. Hardlock shudder.

"Did you say you had the captain's room, sir?" asked the steward standing near.

"Yes."

"Then I am your bedroom steward," was the answer; "I will see that the trunk is put in all right."

The first day out was rainy but not rough; the second day was fair and the sea smooth. The second night Hardlock remained in the smoking-room until the last man had left. Then, when the lights were extinguished, he went out on the upper deck, where his room was, and walked up and down smoking his cigar. There was another man also walking the deck, and the red glow of his cigar, dim and bright alternately, shone in the darkness like a glow-worm.

Hardlock wished that he would turn in, whoever he was. Finally the man flung his cigar overboard and went down the stairway. Hardlock had now the dark deck to himself. He pushed open the door of his room and turned out the electric light. It was only a few steps from his door to the rail of the vessel high above the water. Dimly on the bridge he saw the shadowy figure of an officer walking back and forth. Hardlock looked over the side at the phosphorescent glitter of the water which made the black ocean seem blacker still. The sharp ring of the bell betokening midnight made Melville start as if a hand had touched him, and the quick beating of his heart took some moments to subside. "I've been smoking too much to-day," he said to himself. Then looking quickly up and down the deck, he walked on tip toe to his room, took the trunk by its stout leather handle and pulled it over the ledge in the doorway. There were small wheels at the bottom of the trunk, but although they made the

pulling of it easy, they seemed to creak with appalling loudness. He realised the fearful weight of the trunk as he lifted the end of it up on the rail. He balanced it there for a moment, and glanced sharply around him, but there was nothing to alarm him. In spite of his natural coolness, he felt a strange, haunting dread of some undefinable disaster, a dread which had been completely absent from him at the time he committed the murder. He shoved off the trunk before he had quite intended to do so, and the next instant he nearly bit through his tongue to suppress a groan of agony. There passed half a dozen moments of supreme pain and fear before he realised what had happened. His wrist had caught in the strap handle of the trunk, and his shoulder was dislocated. His right arm was stretched taut and helpless, like a rope holding up the frightful and ever-increasing weight that hung between him and the sea. His breast was pressed against the rail and his left hand gripped the iron stanchion to keep himself from going over. He felt that his feet were slipping, and he set his teeth and gripped the iron with a grasp that was itself like iron. He hoped the trunk would slip from his useless wrist, but it rested against the side of the vessel, and the longer it hung the more it pressed the hard strap handle into his nerveless flesh. He had realised from the first that he dare not cry for help, and his breath came hard through his clenched teeth as the weight grew heavier and heavier. Then, with his eyes strained by the fearful pressure, and perhaps dazzled by the glittering phosphorescence running so swiftly by the side of the steamer far below, he seemed to see from out the trunk something in the form and semblance of his dead friend quivering like summer heat below him. Sometimes it was the shimmering phosphorescence, then again it was the wraith hovering over the trunk. Hardlock, in spite of his agony, wondered which it really was; but he wondered no longer when it spoke to him.

"Old Friend," it said, "you remember our compact when we left England. It was to be 'share and share alike,' my boy--'share and share alike.' I have had my share. Come!"

Then on the still night air came the belated cry for help, but it was after the foot had slipped and the hand had been wrenched from the iron stanchion.

THE SEA-GULL

the Project Gutenberg EBook of *The Sea-Gull*, by Anton Checkov

A Play In Four Acts

CHARACTERS

IRINA ABKADINA, an actress

CONSTANTINE TREPLIEFF, her son

PETER SORIN, her brother

NINA ZARIETCHNAYA, a young girl, the daughter of a rich landowner

ILIA SHAMRAEFF, the manager of SORIN'S estate

PAULINA, his wife

MASHA, their daughter

BORIS TRIGORIN, an author

EUGENE DORN, a doctor

SIMON MEDVIEDENKO, a schoolmaster

JACOB, a workman

A COOK

A MAIDSERVANT

The scene is laid on SORIN'S estate. Two years elapse between the third and fourth acts.

THE SEA-GULL

ACT I

The scene is laid in the park on SORIN'S estate. A broad avenue of trees leads away from the audience toward a lake which lies lost in the depths of the park. The avenue is obstructed by a rough stage, temporarily erected for the performance of amateur theatricals, and which screens the lake from view. There is a dense growth of bushes to the left and right of the stage. A few chairs and a little table are placed in front of the stage. The sun has just set. JACOB and some other workmen are heard hammering and coughing on the stage behind the lowered curtain.

MASHA and MEDVIEDENKO come in from the left, returning from a walk.

MEDVIEDENKO. Why do you always wear mourning?

MASHA. I dress in black to match my life. I am unhappy.

MEDVIEDENKO. Why should you be unhappy? [Thinking it over] I don't understand it. You are healthy, and though your father is not rich, he has a good competency. My life is far harder than yours. I only have twenty-three roubles a month to live on, but I don't wear mourning. [They sit down].

MASHA. Happiness does not depend on riches; poor men are often happy.

MEDVIEDENKO. In theory, yes, but not in reality. Take my case, for instance; my mother, my two sisters, my little brother and I must all live somehow on my salary of twenty-three roubles a month. We have to eat and drink, I take it. You wouldn't have us go without tea and sugar, would you? Or tobacco? Answer me that, if you can.

MASHA. [Looking in the direction of the stage] The play will soon begin.

MEDVIEDENKO. Yes, Nina Zarietchnaya is going to act in Treplieff's play. They love one another, and their two souls will unite to-night in the effort to interpret the same idea by different means. There is no ground on which your soul and mine can meet. I love you. Too restless and sad to stay at home, I tramp here every day, six miles and back, to be met only by your indifference. I am poor, my family is large, you can have no inducement to marry a man who cannot even find sufficient food for his own mouth.

MASHA. It is not that. [She takes snuff] I am touched by your affection, but I cannot return it, that is all. [She offers him the snuff-box] Will you take some?

MEDVIEDENKO. No, thank you. [A pause.]

MASHA. The air is sultry; a storm is brewing for to-night. You do nothing but moralise or else talk about money. To you, poverty is the greatest misfortune that can befall a man, but I think it is a thousand times easier to go begging in rags than to--You wouldn't understand

that, though.

SORIN leaning on a cane, and TREPLIEFF come in.

SORIN. For some reason, my boy, country life doesn't suit me, and I am sure I shall never get used to it. Last night I went to bed at ten and woke at nine this morning, feeling as if, from oversleep, my brain had stuck to my skull. [Laughing] And yet I accidentally dropped off to sleep again after dinner, and feel utterly done up at this moment. It is like a nightmare.

TREPLIEFF. There is no doubt that you should live in town. [He catches sight of MASHA and MEDVIEDENKO] You shall be called when the play begins, my friends, but you must not stay here now. Go away, please.

SORIN. Miss Masha, will you kindly ask your father to leave the dog unchained? It howled so last night that my sister was unable to sleep.

MASHA. You must speak to my father yourself. Please excuse me; I can't do so. [To MEDVIEDENKO] Come, let us go.

MEDVIEDENKO. You will let us know when the play begins?

MASHA and MEDVIEDENKO go out.

SORIN. I foresee that that dog is going to howl all night again. It is always this way in the country; I have never been able to live as I like here. I come down for a month's holiday, to rest and all, and am plagued so by their nonsense that I long to escape after the first day. [Laughing] I have always been glad to get away from this place, but I have been retired now, and this was the only place I had to come to. Willy-nilly, one must live somewhere.

JACOB. [To TREPLIEFF] We are going to take a swim, Mr. Constantine.

TREPLIEFF. Very well, but you must be back in ten minutes.

JACOB. We will, sir.

TREPLIEFF. [Looking at the stage] Just like a real theatre! See, there we have the curtain, the foreground, the background, and all. No artificial scenery is needed. The eye travels direct to the lake, and rests on the horizon. The curtain will be raised as the moon rises at half-past eight.

SORIN. Splendid!

TREPLIEFF. Of course the whole effect will be ruined if Nina is late. She should be here by now, but her father and stepmother watch her so closely that it is like stealing her from a prison to get her away from home. [He straightens SORIN'S collar] Your hair and beard are all on

end. Oughtn't you to have them trimmed?

SORIN. [Smoothing his beard] They are the tragedy of my existence. Even when I was young I always looked as if I were drunk, and all. Women have never liked me. [Sitting down] Why is my sister out of temper?

TREPLIEFF. Why? Because she is jealous and bored. [Sitting down beside SORIN] She is not acting this evening, but Nina is, and so she has set herself against me, and against the performance of the play, and against the play itself, which she hates without ever having read it.

SORIN. [Laughing] Does she, really?

TREPLIEFF. Yes, she is furious because Nina is going to have a success on this little stage. [Looking at his watch] My mother is a psychological curiosity. Without doubt brilliant and talented, capable of sobbing over a novel, of reciting all Nekrasoff's poetry by heart, and of nursing the sick like an angel of heaven, you should see what happens if any one begins praising Duse to her! She alone must be praised and written about, raved over, her marvellous acting in "La Dame aux Camelias" extolled to the skies. As she cannot get all that rubbish in the country, she grows peevish and cross, and thinks we are all against her, and to blame for it all. She is superstitious, too. She dreads burning three candles, and fears the thirteenth day of the month. Then she is stingy. I know for a fact that she has seventy thousand roubles in a bank at Odessa, but she is ready to burst into tears if you ask her to lend you a penny.

SORIN. You have taken it into your head that your mother dislikes your play, and the thought of it has excited you, and all. Keep calm; your mother adores you.

TREPLIEFF. [Pulling a flower to pieces] She loves me, loves me not; loves--loves me not; loves--loves me not! [Laughing] You see, she doesn't love me, and why should she? She likes life and love and gay clothes, and I am already twenty-five years old; a sufficient reminder to her that she is no longer young. When I am away she is only thirty-two, in my presence she is forty-three, and she hates me for it. She knows, too, that I despise the modern stage. She adores it, and imagines that she is working on it for the benefit of humanity and her sacred art, but to me the theatre is merely the vehicle of convention and prejudice. When the curtain rises on that little three-walled room, when those mighty geniuses, those high-priests of art, show us people in the act of eating, drinking, loving, walking, and wearing their coats, and attempt to extract a moral from their insipid talk; when playwrights give us under a thousand different guises the same, same, same old stuff, then I must needs run from it, as Maupassant ran from the Eiffel Tower that was about to crush him by its vulgarity.

SORIN. But we can't do without a theatre.

TREPLIEFF. No, but we must have it under a new form. If we can't do that, let us rather not have it at all. [Looking at his watch] I love my mother, I love her devotedly, but I think she leads a stupid life. She always has this man of letters of hers on her mind, and the newspapers are always frightening her to death, and I am tired of it. Plain, human egoism sometimes speaks in my heart, and I regret that my mother is a famous actress. If she were an ordinary woman I think I should be a happier man. What could be more intolerable and foolish than my position, Uncle, when I find myself the only nonentity among a crowd of her guests, all celebrated authors and artists? I feel that they only endure me because I am her son. Personally I am nothing, nobody. I pulled through my third year at college by the skin of my teeth, as they say. I have neither money nor brains, and on my passport you may read that I am simply a citizen of Kiev. So was my father, but he was a well-known actor. When the celebrities that frequent my mother's drawing-room deign to notice me at all, I know they only look at me to measure my insignificance; I read their thoughts, and suffer from humiliation.

SORIN. Tell me, by the way, what is Trigorin like? I can't understand him, he is always so silent.

TREPLIEFF. Trigorin is clever, simple, well-mannered, and a little, I might say, melancholic in disposition. Though still under forty, he is surfeited with praise. As for his stories, they are--how shall I put it?--pleasing, full of talent, but if you have read Tolstoi or Zola you somehow don't enjoy Trigorin.

SORIN. Do you know, my boy, I like literary men. I once passionately desired two things: to marry, and to become an author. I have succeeded in neither. It must be pleasant to be even an insignificant author.

TREPLIEFF. [Listening] I hear footsteps! [He embraces his uncle] I cannot live without her; even the sound of her footsteps is music to me. I am madly happy. [He goes quickly to meet NINA, who comes in at that moment] My enchantress! My girl of dreams!

NINA. [Excitedly] It can't be that I am late? No, I am not late.

TREPLIEFF. [Kissing her hands] No, no, no!

NINA. I have been in a fever all day, I was so afraid my father would prevent my coming, but he and my stepmother have just gone driving. The sky is clear, the moon is rising. How I hurried to get here! How I urged my horse to go faster and faster! [Laughing] I am _so_ glad to see you! [She shakes hands with SORIN.]

SORIN. Oho! Your eyes look as if you had been crying. You mustn't do that.

NINA. It is nothing, nothing. Do let us hurry. I must go in half an

hour. No, no, for heaven's sake do not urge me to stay. My father doesn't know I am here.

TREPLIEFF. As a matter of fact, it is time to begin now. I must call the audience.

SORIN. Let me call them--and all--I am going this minute. [He goes toward the right, begins to sing "The Two Grenadiers," then stops.] I was singing that once when a fellow-lawyer said to me: "You have a powerful voice, sir." Then he thought a moment and added, "But it is a disagreeable one!" [He goes out laughing.]

NINA. My father and his wife never will let me come here; they call this place Bohemia and are afraid I shall become an actress. But this lake attracts me as it does the gulls. My heart is full of you. [She glances about her.]

TREPLIEFF. We are alone.

NINA. Isn't that some one over there?

TREPLIEFF. No. [They kiss one another.]

NINA. What is that tree?

TREPLIEFF. An elm.

NINA. Why does it look so dark?

TREPLIEFF. It is evening; everything looks dark now. Don't go away early, I implore you.

NINA. I must.

TREPLIEFF. What if I were to follow you, Nina? I shall stand in your garden all night with my eyes on your window.

NINA. That would be impossible; the watchman would see you, and Treasure is not used to you yet, and would bark.

TREPLIEFF. I love you.

NINA. Hush!

TREPLIEFF. [Listening to approaching footsteps] Who is that? Is it you, Jacob?

JACOB. [On the stage] Yes, sir.

TREPLIEFF. To your places then. The moon is rising; the play must commence.

NINA. Yes, sir.

TREPLIEFF. Is the alcohol ready? Is the sulphur ready? There must be fumes of sulphur in the air when the red eyes shine out. [To NINA] Go, now, everything is ready. Are you nervous?

NINA. Yes, very. I am not so much afraid of your mother as I am of Trigorin. I am terrified and ashamed to act before him; he is so famous. Is he young?

TREPLIEFF. Yes.

NINA. What beautiful stories he writes!

TREPLIEFF. [Coldly] I have never read any of them, so I can't say.

NINA. Your play is very hard to act; there are no living characters in it.

TREPLIEFF. Living characters! Life must be represented not as it is, but as it ought to be; as it appears in dreams.

NINA. There is so little action; it seems more like a recitation. I think love should always come into every play.

NINA and TREPLIEFF go up onto the little stage; PAULINA and DORN come in.

PAULINA. It is getting damp. Go back and put on your goloshes.

DORN. I am quite warm.

PAULINA. You never will take care of yourself; you are quite obstinate about it, and yet you are a doctor, and know quite well that damp air is bad for you. You like to see me suffer, that's what it is. You sat out on the terrace all yesterday evening on purpose.

DORN. [Sings]

"Oh, tell me not that youth is wasted."

PAULINA. You were so enchanted by the conversation of Madame Arkadina that you did not even notice the cold. Confess that you admire her.

DORN. I am fifty-five years old.

PAULINA. A trifle. That is not old for a man. You have kept your looks magnificently, and women still like you.

DORN. What are you trying to tell me?

PAULINA. You men are all ready to go down on your knees to an actress, all of you.

DORN. [Sings]

"Once more I stand before thee."

It is only right that artists should be made much of by society and treated differently from, let us say, merchants. It is a kind of idealism.

PAULINA. When women have loved you and thrown themselves at your head, has that been idealism?

DORN. [Shrugging his shoulders] I can't say. There has been a great deal that was admirable in my relations with women. In me they liked, above all, the superior doctor. Ten years ago, you remember, I was the only decent doctor they had in this part of the country--and then, I have always acted like a man of honour.

PAULINA. [Seizes his hand] Dearest!

DORN. Be quiet! Here they come.

ARKADINA comes in on SORIN'S arm; also TRIGORIN, SHAMRAEFF, MEDVIEDENKO, and MASHA.

SHAMRAEFF. She acted most beautifully at the Poltava Fair in 1873; she was really magnificent. But tell me, too, where Tchadin the comedian is now? He was inimitable as Rasplueff, better than Sadofski. Where is he now?

ARKADINA. Don't ask me where all those antediluvians are! I know nothing about them. [She sits down.]

SHAMRAEFF. [Sighing] Pashka Tchadin! There are none left like him. The stage is not what it was in his time. There were sturdy oaks growing on it then, where now but stumps remain.

DORN. It is true that we have few dazzling geniuses these days, but, on the other hand, the average of acting is much higher.

SHAMRAEFF. I cannot agree with you; however, that is a matter of taste, _de gustibus._

Enter TREPLIEFF from behind the stage.

ARKADINA. When will the play begin, my dear boy?

TREPLIEFF. In a moment. I must ask you to have patience.

ARKADINA. [Quoting from Hamlet] My son,

"Thou turn'st mine eyes into my very soul;
And there I see such black grained spots
As will not leave their tinct."

[A horn is blown behind the stage.]

TREPLIEFF. Attention, ladies and gentlemen! The play is about to begin.
[A pause] I shall commence. [He taps the door with a stick, and speaks in a loud voice] O, ye time-honoured, ancient mists that drive at night across the surface of this lake, blind you our eyes with sleep, and show us in our dreams that which will be in twice ten thousand years!

SORIN. There won't be anything in twice ten thousand years.

TREPLIEFF. Then let them now show us that nothingness.

ARKADINA. Yes, let them--we are asleep.

The curtain rises. A vista opens across the lake. The moon hangs low above the horizon and is reflected in the water. NINA, dressed in white, is seen seated on a great rock.

NINA. All men and beasts, lions, eagles, and quails, horned stags, geese, spiders, silent fish that inhabit the waves, starfish from the sea, and creatures invisible to the eye--in one word, life--all, all life, completing the dreary round imposed upon it, has died out at last. A thousand years have passed since the earth last bore a living creature on her breast, and the unhappy moon now lights her lamp in vain. No longer are the cries of storks heard in the meadows, or the drone of beetles in the groves of limes. All is cold, cold. All is void, void, void. All is terrible, terrible--[A pause] The bodies of all living creatures have dropped to dust, and eternal matter has transformed them into stones and water and clouds; but their spirits have flowed together into one, and that great world-soul am I! In me is the spirit of the great Alexander, the spirit of Napoleon, of Caesar, of Shakespeare, and of the tiniest leech that swims. In me the consciousness of man has joined hands with the instinct of the animal; I understand all, all, all, and each life lives again in me.

[The will-o-the-wisps flicker out along the lake shore.]

ARKADINA. [Whispers] What decadent rubbish is this?

TREPLIEFF. [Imploringly] Mother!

NINA. I am alone. Once in a hundred years my lips are opened, my voice echoes mournfully across the desert earth, and no one hears. And you, poor lights of the marsh, you do not hear me. You are engendered at

sunset in the putrid mud, and flit wavering about the lake till dawn, unconscious, unreasoning, unwarmed by the breath of life. Satan, father of eternal matter, trembling lest the spark of life should glow in you, has ordered an unceasing movement of the atoms that compose you, and so you shift and change for ever. I, the spirit of the universe, I alone am immutable and eternal. [A pause] Like a captive in a dungeon deep and void, I know not where I am, nor what awaits me. One thing only is not hidden from me: in my fierce and obstinate battle with Satan, the source of the forces of matter, I am destined to be victorious in the end. Matter and spirit will then be one at last in glorious harmony, and the reign of freedom will begin on earth. But this can only come to pass by slow degrees, when after countless eons the moon and earth and shining Sirius himself shall fall to dust. Until that hour, oh, horror! horror! horror! [A pause. Two glowing red points are seen shining across the lake] Satan, my mighty foe, advances; I see his dread and lurid eyes.

ARKADINA. I smell sulphur. Is that done on purpose?

TREPLIEFF. Yes.

ARKADINA. Oh, I see; that is part of the effect.

TREPLIEFF. Mother!

NINA. He longs for man--

PAULINA. [To DORN] You have taken off your hat again! Put it on, you will catch cold.

ARKADINA. The doctor has taken off his hat to Satan father of eternal matter--

TREPLIEFF. [Loudly and angrily] Enough of this! There's an end to the performance. Down with the curtain!

ARKADINA. Why, what are you so angry about?

TREPLIEFF. [Stamping his foot] The curtain; down with it! [The curtain falls] Excuse me, I forgot that only a chosen few might write plays or act them. I have infringed the monopoly. I--I--

He would like to say more, but waves his hand instead, and goes out to the left.

ARKADINA. What is the matter with him?

SORIN. You should not handle youthful egoism so roughly, sister.

ARKADINA. What did I say to him?

SORIN. You hurt his feelings.

ARKADINA. But he told me himself that this was all in fun, so I treated his play as if it were a comedy.

SORIN. Nevertheless---

ARKADINA. Now it appears that he has produced a masterpiece, if you please! I suppose it was not meant to amuse us at all, but that he arranged the performance and fumigated us with sulphur to demonstrate to us how plays should be written, and what is worth acting. I am tired of him. No one could stand his constant thrusts and sallies. He is a wilful, egotistic boy.

SORIN. He had hoped to give you pleasure.

ARKADINA. Is that so? I notice, though, that he did not choose an ordinary play, but forced his decadent trash on us. I am willing to listen to any raving, so long as it is not meant seriously, but in showing us this, he pretended to be introducing us to a new form of art, and inaugurating a new era. In my opinion, there was nothing new about it, it was simply an exhibition of bad temper.

TRIGORIN. Everybody must write as he feels, and as best he may.

ARKADINA. Let him write as he feels and can, but let him spare me his nonsense.

DORN. Thou art angry, O Jove!

ARKADINA. I am a woman, not Jove. [She lights a cigarette] And I am not angry, I am only sorry to see a young man foolishly wasting his time. I did not mean to hurt him.

MEDVIEDENKO. No one has any ground for separating life from matter, as the spirit may well consist of the union of material atoms. [Excitedly, to TRIGORIN] Some day you should write a play, and put on the stage the life of a schoolmaster. It is a hard, hard life.

ARKADINA. I agree with you, but do not let us talk about plays or atoms now. This is such a lovely evening. Listen to the singing, friends, how sweet it sounds.

PAULINA. Yes, they are singing across the water. [A pause.]

ARKADINA. [To TRIGORIN] Sit down beside me here. Ten or fifteen years ago we had music and singing on this lake almost all night. There are six houses on its shores. All was noise and laughter and romance then, such romance! The young star and idol of them all in those days was this man here, [Nods toward DORN] Doctor Eugene Dorn. He is fascinating now, but he was irresistible then. But my conscience is beginning to prick me. Why did I hurt my poor boy? I am uneasy about him. [Loudly]

Constantine! Constantine!

MASHA. Shall I go and find him?

ARKADINA. If you please, my dear.

MASHA. [Goes off to the left, calling] Mr. Constantine! Oh, Mr. Constantine!

NINA. [Comes in from behind the stage] I see that the play will never be finished, so now I can go home. Good evening. [She kisses ARKADINA and PAULINA.]

SORIN. Bravo! Bravo!

ARKADINA. Bravo! Bravo! We were quite charmed by your acting. With your looks and such a lovely voice it is a crime for you to hide yourself in the country. You must be very talented. It is your duty to go on the stage, do you hear me?

NINA. It is the dream of my life, which will never come true.

ARKADINA. Who knows? Perhaps it will. But let me present Monsieur Boris Trigorin.

NINA. I am delighted to meet you. [Embarrassed] I have read all your books.

ARKADINA. [Drawing NINA down beside her] Don't be afraid of him, dear. He is a simple, good-natured soul, even if he is a celebrity. See, he is embarrassed himself.

DORN. Couldn't the curtain be raised now? It is depressing to have it down.

SHAMRAEFF. [Loudly] Jacob, my man! Raise the curtain!

NINA. [To TRIGORIN] It was a curious play, wasn't it?

TRIGORIN. Very. I couldn't understand it at all, but I watched it with the greatest pleasure because you acted with such sincerity, and the setting was beautiful. [A pause] There must be a lot of fish in this lake.

NINA. Yes, there are.

TRIGORIN. I love fishing. I know of nothing pleasanter than to sit on a lake shore in the evening with one's eyes on a floating cork.

NINA. Why, I should think that for one who has tasted the joys of creation, no other pleasure could exist.

ARKADINA. Don't talk like that. He always begins to flounder when people say nice things to him.

SHAMRAEFF. I remember when the famous Silva was singing once in the Opera House at Moscow, how delighted we all were when he took the low C. Well, you can imagine our astonishment when one of the church cantors, who happened to be sitting in the gallery, suddenly boomed out: "Bravo, Silva!" a whole octave lower. Like this: [In a deep bass voice] "Bravo, Silva!" The audience was left breathless. [A pause.]

DORN. An angel of silence is flying over our heads.

NINA. I must go. Good-bye.

ARKADINA. Where to? Where must you go so early? We shan't allow it.

NINA. My father is waiting for me.

ARKADINA. How cruel he is, really. [They kiss each other] Then I suppose we can't keep you, but it is very hard indeed to let you go.

NINA. If you only knew how hard it is for me to leave you all.

ARKADINA. Somebody must see you home, my pet.

NINA. [Startled] No, no!

SORIN. [Imploringly] Don't go!

NINA. I must.

SORIN. Stay just one hour more, and all. Come now, really, you know.

NINA. [Struggling against her desire to stay; through her tears] No, no, I can't. [She shakes hands with him and quickly goes out.]

ARKADINA. An unlucky girl! They say that her mother left the whole of an immense fortune to her husband, and now the child is penniless because the father has already willed everything away to his second wife. It is pitiful.

DORN. Yes, her papa is a perfect beast, and I don't mind saying so--it is what he deserves.

SORIN. [Rubbing his chilled hands] Come, let us go in; the night is damp, and my legs are aching.

ARKADINA. Yes, you act as if they were turned to stone; you can hardly move them. Come, you unfortunate old man. [She takes his arm.]

SHAMRAEFF. [Offering his arm to his wife] Permit me, madame.

SORIN. I hear that dog howling again. Won't you please have it unchained, Shamraeff?

SHAMRAEFF. No, I really can't, sir. The granary is full of millet, and I am afraid thieves might break in if the dog were not there. [Walking beside MEDVIEDENKO] Yes, a whole octave lower: "Bravo, Silva!" and he wasn't a singer either, just a simple church cantor.

MEDVIEDENKO. What salary does the church pay its singers? [All go out except DORN.]

DORN. I may have lost my judgment and my wits, but I must confess I liked that play. There was something in it. When the girl spoke of her solitude and the Devil's eyes gleamed across the lake, I felt my hands shaking with excitement. It was so fresh and naive. But here he comes; let me say something pleasant to him.

TREPLIEFF comes in.

TREPLIEFF. All gone already?

DORN. I am here.

TREPLIEFF. Masha has been yelling for me all over the park. An insufferable creature.

DORN. Constantine, your play delighted me. It was strange, of course, and I did not hear the end, but it made a deep impression on me. You have a great deal of talent, and must persevere in your work.

TREPLIEFF seizes his hand and squeezes it hard, then kisses him impetuously.

DORN. Tut, tut! how excited you are. Your eyes are full of tears. Listen to me. You chose your subject in the realm of abstract thought, and you did quite right. A work of art should invariably embody some lofty idea. Only that which is seriously meant can ever be beautiful. How pale you are!

TREPLIEFF. So you advise me to persevere?

DORN. Yes, but use your talent to express only deep and eternal truths. I have led a quiet life, as you know, and am a contented man, but if I should ever experience the exaltation that an artist feels during his moments of creation, I think I should spurn this material envelope of my soul and everything connected with it, and should soar away into heights above this earth.

TREPLIEFF. I beg your pardon, but where is Nina?

DORN. And yet another thing: every work of art should have a definite object in view. You should know why you are writing, for if you follow the road of art without a goal before your eyes, you will lose yourself, and your genius will be your ruin.

TREPLIEFF. [Impetuously] Where is Nina?

DORN. She has gone home.

TREPLIEFF. [In despair] Gone home? What shall I do? I want to see her; I must see her! I shall follow her.

DORN. My dear boy, keep quiet.

TREPLIEFF. I am going. I must go.

MASHA comes in.

MASHA. Your mother wants you to come in, Mr. Constantine. She is waiting for you, and is very uneasy.

TREPLIEFF. Tell her I have gone away. And for heaven's sake, all of you, leave me alone! Go away! Don't follow me about!

DORN. Come, come, old chap, don't act like this; it isn't kind at all.

TREPLIEFF. [Through his tears] Good-bye, doctor, and thank you.

TREPLIEFF goes out.

DORN. [Sighing] Ah, youth, youth!

MASHA. It is always "Youth, youth," when there is nothing else to be said.

She takes snuff. DORN takes the snuff-box out of her hands and flings it into the bushes.

DORN. Don't do that, it is horrid. [A pause] I hear music in the house. I must go in.

MASHA. Wait a moment.

DORN. What do you want?

MASHA. Let me tell you again. I feel like talking. [She grows more and more excited] I do not love my father, but my heart turns to you. For some reason, I feel with all my soul that you are near to me. Help me! Help me, or I shall do something foolish and mock at my life, and ruin it. I am at the end of my strength.

DORN. What is the matter? How can I help you?

MASHA. I am in agony. No one, no one can imagine how I suffer. [She lays her head on his shoulder and speaks softly] I love Constantine.

DORN. Oh, how excitable you all are! And how much love there is about this lake of spells! [Tenderly] But what can I do for you, my child? What? What?

The curtain falls.

ACT II

The lawn in front of SORIN'S house. The house stands in the background, on a broad terrace. The lake, brightly reflecting the rays of the sun, lies to the left. There are flower-beds here and there. It is noon; the day is hot. ARKADINA, DORN, and MASHA are sitting on a bench on the lawn, in the shade of an old linden. An open book is lying on DORN'S knees.

ARKADINA. [To MASHA] Come, get up. [They both get up] Stand beside me. You are twenty-two and I am almost twice your age. Tell me, Doctor, which of us is the younger looking?

DORN. You are, of course.

ARKADINA. You see! Now why is it? Because I work; my heart and mind are always busy, whereas you never move off the same spot. You don't live. It is a maxim of mine never to look into the future. I never admit the thought of old age or death, and just accept what comes to me.

MASHA. I feel as if I had been in the world a thousand years, and I trail my life behind me like an endless scarf. Often I have no desire to live at all. Of course that is foolish. One ought to pull oneself together and shake off such nonsense.

DORN. [Sings softly]

"Tell her, oh flowers--"

ARKADINA. And then I keep myself as correct-looking as an Englishman. I am always well-groomed, as the saying is, and carefully dressed, with my hair neatly arranged. Do you think I should ever permit myself to leave the house half-dressed, with untidy hair? Certainly not! I have kept my looks by never letting myself slump as some women do. [She puts her arms akimbo, and walks up and down on the lawn] See me, tripping on tiptoe like a fifteen-year-old girl.

DORN. I see. Nevertheless, I shall continue my reading. [He takes up his book] Let me see, we had come to the grain-dealer and the rats.

ARKADINA. And the rats. Go on. [She sits down] No, give me the book, it is my turn to read. [She takes the book and looks for the place] And the rats. Ah, here it is. [She reads] "It is as dangerous for society to attract and indulge authors as it is for grain-dealers to raise rats in their granaries. Yet society loves authors. And so, when a woman has found one whom she wishes to make her own, she lays siege to him by indulging and flattering him." That may be so in France, but it certainly is not so in Russia. We do not carry out a programme like that. With us, a woman is usually head over ears in love with an author before she attempts to lay siege to him. You have an example before your eyes, in me and Trigorin.

SORIN comes in leaning on a cane, with NINA beside him. MEDVIEDENKO follows, pushing an arm-chair.

SORIN. [In a caressing voice, as if speaking to a child] So we are happy now, eh? We are enjoying ourselves to-day, are we? Father and stepmother have gone away to Tver, and we are free for three whole days!

NINA. [Sits down beside ARKADINA, and embraces her] I am so happy. I belong to you now.

SORIN. [Sits down in his arm-chair] She looks lovely to-day.

ARKADINA. Yes, she has put on her prettiest dress, and looks sweet. That was nice of you. [She kisses NINA] But we mustn't praise her too much; we shall spoil her. Where is Trigorin?

NINA. He is fishing off the wharf.

ARKADINA. I wonder he isn't bored. [She begins to read again.]

NINA. What are you reading?

ARKADINA. "On the Water," by Maupassant. [She reads a few lines to herself] But the rest is neither true nor interesting. [She lays down the book] I am uneasy about my son. Tell me, what is the matter with him? Why is he so dull and depressed lately? He spends all his days on the lake, and I scarcely ever see him any more.

MASHA. His heart is heavy. [Timidly, to NINA] Please recite something from his play.

NINA. [Shrugging her shoulders] Shall I? Is it so interesting?

MASHA. [With suppressed rapture] When he recites, his eyes shine and his face grows pale. His voice is beautiful and sad, and he has the ways of

a poet.

SORIN begins to snore.

DORN. Pleasant dreams!

ARKADINA. Peter!

SORIN. Eh?

ARKADINA. Are you asleep?

SORIN. Not a bit of it. [A pause.]

ARKADINA. You don't do a thing for your health, brother, but you really ought to.

DORN. The idea of doing anything for one's health at sixty-five!

SORIN. One still wants to live at sixty-five.

DORN. [Crossly] Ho! Take some camomile tea.

ARKADINA. I think a journey to some watering-place would be good for him.

DORN. Why, yes; he might go as well as not.

ARKADINA. You don't understand.

DORN. There is nothing to understand in this case; it is quite clear.

MEDVIEDENKO. He ought to give up smoking.

SORIN. What nonsense! [A pause.]

DORN. No, that is not nonsense. Wine and tobacco destroy the individuality. After a cigar or a glass of vodka you are no longer Peter Sorin, but Peter Sorin plus somebody else. Your ego breaks in two: you begin to think of yourself in the third person.

SORIN. It is easy for you to condemn smoking and drinking; you have known what life is, but what about me? I have served in the Department of Justice for twenty-eight years, but I have never lived, I have never had any experiences. You are satiated with life, and that is why you have an inclination for philosophy, but I want to live, and that is why I drink my wine for dinner and smoke cigars, and all.

DORN. One must take life seriously, and to take a cure at sixty-five and regret that one did not have more pleasure in youth is, forgive my saying so, trifling.

MASHA. It must be lunch-time. [She walks away languidly, with a dragging step] My foot has gone to sleep.

DORN. She is going to have a couple of drinks before lunch.

SORIN. The poor soul is unhappy.

DORN. That is a trifle, your honour.

SORIN. You judge her like a man who has obtained all he wants in life.

ARKADINA. Oh, what could be duller than this dear tedium of the country? The air is hot and still, nobody does anything but sit and philosophise about life. It is pleasant, my friends, to sit and listen to you here, but I had rather a thousand times sit alone in the room of a hotel learning a role by heart.

NINA. [With enthusiasm] You are quite right. I understand how you feel.

SORIN. Of course it is pleasanter to live in town. One can sit in one's library with a telephone at one's elbow, no one comes in without being first announced by the footman, the streets are full of cabs, and all---

DORN. [Sings]

"Tell her, oh flowers---"

SHAMRAEFF comes in, followed by PAULINA.

SHAMRAEFF. Here they are. How do you do? [He kisses ARKADINA'S hand and then NINA'S] I am delighted to see you looking so well. [To ARKADINA] My wife tells me that you mean to go to town with her to-day. Is that so?

ARKADINA. Yes, that is what I had planned to do.

SHAMRAEFF. Hm--that is splendid, but how do you intend to get there, madam? We are hauling rye to-day, and all the men are busy. What horses would you take?

ARKADINA. What horses? How do I know what horses we shall have?

SORIN. Why, we have the carriage horses.

SHAMRAEFF. The carriage horses! And where am I to find the harness for them? This is astonishing! My dear madam, I have the greatest respect for your talents, and would gladly sacrifice ten years of my life for you, but I cannot let you have any horses to-day.

ARKADINA. But if I must go to town? What an extraordinary state of affairs!

SHAMRAEFF. You do not know, madam, what it is to run a farm.

ARKADINA. [In a burst of anger] That is an old story! Under these circumstances I shall go back to Moscow this very day. Order a carriage for me from the village, or I shall go to the station on foot.

SHAMRAEFF. [losing his temper] Under these circumstances I resign my position. You must find yourself another manager. [He goes out.]

ARKADINA. It is like this every summer: every summer I am insulted here. I shall never set foot here again.

She goes out to the left, in the direction of the wharf. In a few minutes she is seen entering the house, followed by TRIGORIN, who carries a bucket and fishing-rod.

SORIN. [Losing his temper] What the deuce did he mean by his impudence? I want all the horses brought here at once!

NINA. [To PAULINA] How could he refuse anything to Madame Arkadina, the famous actress? Is not every wish, every caprice even, of hers, more important than any farm work? This is incredible.

PAULINA. [In despair] What can I do about it? Put yourself in my place and tell me what I can do.

SORIN. [To NINA] Let us go and find my sister, and all beg her not to go. [He looks in the direction in which SHAMRAEFF went out] That man is insufferable; a regular tyrant.

NINA. [Preventing him from getting up] Sit still, sit still, and let us wheel you. [She and MEDVIEDENKO push the chair before them] This is terrible!

SORIN. Yes, yes, it is terrible; but he won't leave. I shall have a talk with him in a moment. [They go out. Only DORN and PAULINA are left.]

DORN. How tiresome people are! Your husband deserves to be thrown out of here neck and crop, but it will all end by this old granny Sorin and his sister asking the man's pardon. See if it doesn't.

PAULINA. He has sent the carriage horses into the fields too. These misunderstandings occur every day. If you only knew how they excite me! I am ill; see! I am trembling all over! I cannot endure his rough ways. [Imploringly] Eugene, my darling, my beloved, take me to you. Our time is short; we are no longer young; let us end deception and concealment, even though it is only at the end of our lives. [A pause.]

DORN. I am fifty-five years old. It is too late now for me to change my ways of living.

PAULINA. I know that you refuse me because there are other women who are near to you, and you cannot take everybody. I understand. Excuse me--I see I am only bothering you.

NINA is seen near the house picking a bunch of flowers.

DORN. No, it is all right.

PAULINA. I am tortured by jealousy. Of course you are a doctor and cannot escape from women. I understand.

DORN. [TO NINA, who comes toward him] How are things in there?

NINA. Madame Arkadina is crying, and Sorin is having an attack of asthma.

DORN. Let us go and give them both some camomile tea.

NINA. [Hands him the bunch of flowers] Here are some flowers for you.

DORN. Thank you. [He goes into the house.]

PAULINA. [Following him] What pretty flowers! [As they reach the house she says in a low voice] Give me those flowers! Give them to me!

DORN hands her the flowers; she tears them to pieces and flings them away. They both go into the house.

NINA. [Alone] How strange to see a famous actress weeping, and for such a trifle! Is it not strange, too, that a famous author should sit fishing all day? He is the idol of the public, the papers are full of him, his photograph is for sale everywhere, his works have been translated into many foreign languages, and yet he is overjoyed if he catches a couple of minnows. I always thought famous people were distant and proud; I thought they despised the common crowd which exalts riches and birth, and avenged themselves on it by dazzling it with the inextinguishable honour and glory of their fame. But here I see them weeping and playing cards and flying into passions like everybody else.

TREPLIEFF comes in without a hat on, carrying a gun and a dead seagull.

TREPLIEFF. Are you alone here?

NINA. Yes.

TREPLIEFF lays the sea-gull at her feet.

NINA. What do you mean by this?

TREPLIEFF. I was base enough to-day to kill this gull. I lay it at your

feet.

NINA. What is happening to you? [She picks up the gull and stands looking at it.]

TREPLIEFF. [After a pause] So shall I soon end my own life.

NINA. You have changed so that I fail to recognise you.

TREPLIEFF. Yes, I have changed since the time when I ceased to recognise you. You have failed me; your look is cold; you do not like to have me near you.

NINA. You have grown so irritable lately, and you talk so darkly and symbolically that you must forgive me if I fail to follow you. I am too simple to understand you.

TREPLIEFF. All this began when my play failed so dismally. A woman never can forgive failure. I have burnt the manuscript to the last page. Oh, if you could only fathom my unhappiness! Your estrangement is to me terrible, incredible; it is as if I had suddenly waked to find this lake dried up and sunk into the earth. You say you are too simple to understand me; but, oh, what is there to understand? You disliked my play, you have no faith in my powers, you already think of me as commonplace and worthless, as many are. [Stamping his foot] How well I can understand your feelings! And that understanding is to me like a dagger in the brain. May it be accursed, together with my stupidity, which sucks my life-blood like a snake! [He sees TRIGORIN, who approaches reading a book] There comes real genius, striding along like another Hamlet, and with a book, too. [Mockingly] "Words, words, words." You feel the warmth of that sun already, you smile, your eyes melt and glow liquid in its rays. I shall not disturb you. [He goes out.]

TRIGORIN. [Making notes in his book] Takes snuff and drinks vodka; always wears black dresses; is loved by a schoolteacher--

NINA. How do you do?

TRIGORIN. How are you, Miss Nina? Owing to an unforeseen development of circumstances, it seems that we are leaving here today. You and I shall probably never see each other again, and I am sorry for it. I seldom meet a young and pretty girl now; I can hardly remember how it feels to be nineteen, and the young girls in my books are seldom living characters. I should like to change places with you, if but for an hour, to look out at the world through your eyes, and so find out what sort of a little person you are.

NINA. And I should like to change places with you.

TRIGORIN. Why?

NINA. To find out how a famous genius feels. What is it like to be famous? What sensations does it give you?

TRIGORIN. What sensations? I don't believe it gives any. [Thoughtfully] Either you exaggerate my fame, or else, if it exists, all I can say is that one simply doesn't feel fame in any way.

NINA. But when you read about yourself in the papers?

TRIGORIN. If the critics praise me, I am happy; if they condemn me, I am out of sorts for the next two days.

NINA. This is a wonderful world. If you only knew how I envy you! Men are born to different destinies. Some dully drag a weary, useless life behind them, lost in the crowd, unhappy, while to one out of a million, as to you, for instance, comes a bright destiny full of interest and meaning. You are lucky.

TRIGORIN. I, lucky? [He shrugs his shoulders] H-m--I hear you talking about fame, and happiness, and bright destinies, and those fine words of yours mean as much to me--forgive my saying so--as sweetmeats do, which I never eat. You are very young, and very kind.

NINA. Your life is beautiful.

TRIGORIN. I see nothing especially lovely about it. [He looks at his watch] Excuse me, I must go at once, and begin writing again. I am in a hurry. [He laughs] You have stepped on my pet corn, as they say, and I am getting excited, and a little cross. Let us discuss this bright and beautiful life of mine, though. [After a few moments' thought] Violent obsessions sometimes lay hold of a man: he may, for instance, think day and night of nothing but the moon. I have such a moon. Day and night I am held in the grip of one besetting thought, to write, write, write! Hardly have I finished one book than something urges me to write another, and then a third, and then a fourth--I write ceaselessly. I am, as it were, on a treadmill. I hurry for ever from one story to another, and can't help myself. Do you see anything bright and beautiful in that? Oh, it is a wild life! Even now, thrilled as I am by talking to you, I do not forget for an instant that an unfinished story is awaiting me. My eye falls on that cloud there, which has the shape of a grand piano; I instantly make a mental note that I must remember to mention in my story a cloud floating by that looked like a grand piano. I smell heliotrope; I mutter to myself: a sickly smell, the colour worn by widows; I must remember that in writing my next description of a summer evening. I catch an idea in every sentence of yours or of my own, and hasten to lock all these treasures in my literary store-room, thinking that some day they may be useful to me. As soon as I stop working I rush off to the theatre or go fishing, in the hope that I may find oblivion there, but no! Some new subject for a story is sure to come rolling through my brain like an iron cannonball. I hear my desk calling, and have to go back to it and begin to write, write, write, once more. And so it

goes for everlasting. I cannot escape myself, though I feel that I am consuming my life. To prepare the honey I feed to unknown crowds, I am doomed to brush the bloom from my dearest flowers, to tear them from their stems, and trample the roots that bore them under foot. Am I not a madman? Should I not be treated by those who know me as one mentally diseased? Yet it is always the same, same old story, till I begin to think that all this praise and admiration must be a deception, that I am being hoodwinked because they know I am crazy, and I sometimes tremble lest I should be grabbed from behind and whisked off to a lunatic asylum. The best years of my youth were made one continual agony for me by my writing. A young author, especially if at first he does not make a success, feels clumsy, ill-at-ease, and superfluous in the world. His nerves are all on edge and stretched to the point of breaking; he is irresistibly attracted to literary and artistic people, and hovers about them unknown and unnoticed, fearing to look them bravely in the eye, like a man with a passion for gambling, whose money is all gone. I did not know my readers, but for some reason I imagined they were distrustful and unfriendly; I was mortally afraid of the public, and when my first play appeared, it seemed to me as if all the dark eyes in the audience were looking at it with enmity, and all the blue ones with cold indifference. Oh, how terrible it was! What agony!

NINA. But don't your inspiration and the act of creation give you moments of lofty happiness?

TRIGORIN. Yes. Writing is a pleasure to me, and so is reading the proofs, but no sooner does a book leave the press than it becomes odious to me; it is not what I meant it to be; I made a mistake to write it at all; I am provoked and discouraged. Then the public reads it and says: "Yes, it is clever and pretty, but not nearly as good as Tolstoi," or "It is a lovely thing, but not as good as Turgenieff's 'Fathers and Sons,'" and so it will always be. To my dying day I shall hear people say: "Clever and pretty; clever and pretty," and nothing more; and when I am gone, those that knew me will say as they pass my grave: "Here lies Trigorin, a clever writer, but he was not as good as Turgenieff."

NINA. You must excuse me, but I decline to understand what you are talking about. The fact is, you have been spoilt by your success.

TRIGORIN. What success have I had? I have never pleased myself; as a writer, I do not like myself at all. The trouble is that I am made giddy, as it were, by the fumes of my brain, and often hardly know what I am writing. I love this lake, these trees, the blue heaven; nature's voice speaks to me and wakes a feeling of passion in my heart, and I am overcome by an uncontrollable desire to write. But I am not only a painter of landscapes, I am a man of the city besides. I love my country, too, and her people; I feel that, as a writer, it is my duty to speak of their sorrows, of their future, also of science, of the rights of man, and so forth. So I write on every subject, and the public hounds me on all sides, sometimes in anger, and I race and dodge like a fox with a pack of hounds on his trail. I see life and knowledge flitting

away before me. I am left behind them like a peasant who has missed his train at a station, and finally I come back to the conclusion that all I am fit for is to describe landscapes, and that whatever else I attempt rings abominably false.

NINA. You work too hard to realise the importance of your writings. What if you are discontented with yourself? To others you appear a great and splendid man. If I were a writer like you I should devote my whole life to the service of the Russian people, knowing at the same time that their welfare depended on their power to rise to the heights I had attained, and the people should send me before them in a chariot of triumph.

TRIGORIN. In a chariot? Do you think I am Agamemnon? [They both smile.]

NINA. For the bliss of being a writer or an actress I could endure want, and disillusionment, and the hatred of my friends, and the pangs of my own dissatisfaction with myself; but I should demand in return fame, real, resounding fame! [She covers her face with her hands] Whew! My head reels!

THE VOICE OF ARKADINA. [From inside the house] Boris! Boris!

TRIGORIN. She is calling me, probably to come and pack, but I don't want to leave this place. [His eyes rest on the lake] What a blessing such beauty is!

NINA. Do you see that house there, on the far shore?

TRIGORIN. Yes.

NINA. That was my dead mother's home. I was born there, and have lived all my life beside this lake. I know every little island in it.

TRIGORIN. This is a beautiful place to live. [He catches sight of the dead sea-gull] What is that?

NINA. A gull. Constantine shot it.

TRIGORIN. What a lovely bird! Really, I can't bear to go away. Can't you persuade Irina to stay? [He writes something in his note-book.]

NINA. What are you writing?

TRIGORIN. Nothing much, only an idea that occurred to me. [He puts the book back in his pocket] An idea for a short story. A young girl grows up on the shores of a lake, as you have. She loves the lake as the gulls do, and is as happy and free as they. But a man sees her who chances to come that way, and he destroys her out of idleness, as this gull here has been destroyed. [A pause. ARKADINA appears at one of the windows.]

ARKADINA. Boris! Where are you?

TRIGORIN. I am coming this minute.

He goes toward the house, looking back at NINA. ARKADINA remains at the window.

TRIGORIN. What do you want?

ARKADINA. We are not going away, after all.

TRIGORIN goes into the house. NINA comes forward and stands lost in thought.

NINA. It is a dream!

The curtain falls.

ACT III

The dining-room of SORIN'S house. Doors open out of it to the right and left. A table stands in the centre of the room. Trunks and boxes encumber the floor, and preparations for departure are evident. TRIGORIN is sitting at a table eating his breakfast, and MASHA is standing beside him.

MASHA. I am telling you all these things because you write books and they may be useful to you. I tell you honestly, I should not have lived another day if he had wounded himself fatally. Yet I am courageous; I have decided to tear this love of mine out of my heart by the roots.

TRIGORIN. How will you do it?

MASHA. By marrying Medviedenko.

TRIGORIN. The school-teacher?

MASHA. Yes.

TRIGORIN. I don't see the necessity for that.

MASHA. Oh, if you knew what it is to love without hope for years and years, to wait for ever for something that will never come! I shall not marry for love, but marriage will at least be a change, and will bring new cares to deaden the memories of the past. Shall we have another drink?

TRIGORIN. Haven't you had enough?

MASHA. Fiddlesticks! [She fills a glass] Don't look at me with that expression on your face. Women drink oftener than you imagine, but most of them do it in secret, and not openly, as I do. They do indeed, and it is always either vodka or brandy. [They touch glasses] To your good health! You are so easy to get on with that I am sorry to see you go. [They drink.]

TRIGORIN. And I am sorry to leave.

MASHA. You should ask her to stay.

TRIGORIN. She would not do that now. Her son has been behaving outrageously. First he attempted suicide, and now I hear he is going to challenge me to a duel, though what his provocation may be I can't imagine. He is always sulking and sneering and preaching about a new form of art, as if the field of art were not large enough to accommodate both old and new without the necessity of jostling.

MASHA. It is jealousy. However, that is none of my business. [A pause. JACOB walks through the room carrying a trunk; NINA comes in and stands by the window] That schoolteacher of mine is none too clever, but he is very good, poor man, and he loves me dearly, and I am sorry for him. However, let me say good-bye and wish you a pleasant journey. Remember me kindly in your thoughts. [She shakes hands with him] Thanks for your goodwill. Send me your books, and be sure to write something in them; nothing formal, but simply this: "To Masha, who, forgetful of her origin, for some unknown reason is living in this world." Good-bye. [She goes out.]

NINA. [Holding out her closed hand to TRIGORIN] Is it odd or even?

TRIGORIN. Even.

NINA. [With a sigh] No, it is odd. I had only one pea in my hand. I wanted to see whether I was to become an actress or not. If only some one would advise me what to do!

TRIGORIN. One cannot give advice in a case like this. [A pause.]

NINA. We shall soon part, perhaps never to meet again. I should like you to accept this little medallion as a remembrance of me. I have had your initials engraved on it, and on this side is the name of one of your books: "Days and Nights."

TRIGORIN. How sweet of you! [He kisses the medallion] It is a lovely present.

NINA. Think of me sometimes.

TRIGORIN. I shall never forget you. I shall always remember you as I saw

you that bright day--do you recall it?--a week ago, when you wore your light dress, and we talked together, and the white seagull lay on the bench beside us.

NINA. [Lost in thought] Yes, the sea-gull. [A pause] I beg you to let me see you alone for two minutes before you go.

She goes out to the left. At the same moment ARKADINA comes in from the right, followed by SORIN in a long coat, with his orders on his breast, and by JACOB, who is busy packing.

ARKADINA. Stay here at home, you poor old man. How could you pay visits with that rheumatism of yours? [To TRIGORIN] Who left the room just now, was it Nina?

TRIGORIN. Yes.

ARKADINA. I beg your pardon; I am afraid we interrupted you. [She sits down] I think everything is packed. I am absolutely exhausted.

TRIGORIN. [Reading the inscription on the medallion] "Days and Nights, page 121, lines 11 and 12."

JACOB. [Clearing the table] Shall I pack your fishing-rods, too, sir?

TRIGORIN. Yes, I shall need them, but you can give my books away.

JACOB. Very well, sir.

TRIGORIN. [To himself] Page 121, lines 11 and 12. [To ARKADINA] Have we my books here in the house?

ARKADINA. Yes, they are in my brother's library, in the corner cupboard.

TRIGORIN. Page 121--[He goes out.]

SORIN. You are going away, and I shall be lonely without you.

ARKADINA. What would you do in town?

SORIN. Oh, nothing in particular, but somehow--[He laughs] They are soon to lay the corner-stone of the new court-house here. How I should like to leap out of this minnow-pond, if but for an hour or two! I am tired of lying here like an old cigarette stump. I have ordered the carriage for one o'clock. We can go away together.

ARKADINA. [After a pause] No, you must stay here. Don't be lonely, and don't catch cold. Keep an eye on my boy. Take good care of him; guide him along the proper paths. [A pause] I am going away, and so shall never find out why Constantine shot himself, but I think the chief reason was jealousy, and the sooner I take Trigorin away, the better.

SORIN. There were--how shall I explain it to you?--other reasons besides jealousy for his act. Here is a clever young chap living in the depths of the country, without money or position, with no future ahead of him, and with nothing to do. He is ashamed and afraid of being so idle. I am devoted to him and he is fond of me, but nevertheless he feels that he is useless here, that he is little more than a dependent in this house. It is the pride in him.

ARKADINA. He is a misery to me! [Thoughtfully] He might possibly enter the army.

SORIN. [Gives a whistle, and then speaks with hesitation] It seems to me that the best thing for him would be if you were to let him have a little money. For one thing, he ought to be allowed to dress like a human being. See how he looks! Wearing the same little old coat that he has had for three years, and he doesn't even possess an overcoat! [Laughing] And it wouldn't hurt the youngster to sow a few wild oats; let him go abroad, say, for a time. It wouldn't cost much.

ARKADINA. Yes, but--However, I think I might manage about his clothes, but I couldn't let him go abroad. And no, I don't think I can let him have his clothes even, now. [Decidedly] I have no money at present.

SORIN laughs.

ARKADINA. I haven't indeed.

SORIN. [Whistles] Very well. Forgive me, darling; don't be angry. You are a noble, generous woman!

ARKADINA. [Weeping] I really haven't the money.

SORIN. If I had any money of course I should let him have some myself, but I haven't even a penny. The farm manager takes my pension from me and puts it all into the farm or into cattle or bees, and in that way it is always lost for ever. The bees die, the cows die, they never let me have a horse.

ARKADINA. Of course I have some money, but I am an actress and my expenses for dress alone are enough to bankrupt me.

SORIN. You are a dear, and I am very fond of you, indeed I am. But something is the matter with me again. [He staggers] I feel giddy. [He leans against the table] I feel faint, and all.

ARKADINA. [Frightened] Peter! [She tries to support him] Peter! dearest! [She calls] Help! Help!

TREPLIEFF and MEDVIEDENKO come in; TREPLIEFF has a bandage around his head.

ARKADINA. He is fainting!

SORIN. I am all right. [He smiles and drinks some water] It is all over now.

TREPLIEFF. [To his mother] Don't be frightened, mother, these attacks are not dangerous; my uncle often has them now. [To his uncle] You must go and lie down, Uncle.

SORIN. Yes, I think I shall, for a few minutes. I am going to Moscow all the same, but I shall lie down a bit before I start. [He goes out leaning on his cane.]

MEDVIEDENKO. [Giving him his arm] Do you know this riddle? On four legs in the morning; on two legs at noon; and on three legs in the evening?

SORIN. [Laughing] Yes, exactly, and on one's back at night. Thank you, I can walk alone.

MEDVIEDENKO. Dear me, what formality! [He and SORIN go out.]

ARKADINA. He gave me a dreadful fright.

TREPLIEFF. It is not good for him to live in the country. Mother, if you would only untie your purse-strings for once, and lend him a thousand roubles! He could then spend a whole year in town.

ARKADINA. I have no money. I am an actress and not a banker. [A pause.]

TREPLIEFF. Please change my bandage for me, mother, you do it so gently.

ARKADINA goes to the cupboard and takes out a box of bandages and a bottle of iodoform.

ARKADINA. The doctor is late.

TREPLIEFF. Yes, he promised to be here at nine, and now it is noon already.

ARKADINA. Sit down. [She takes the bandage off his head] You look as if you had a turban on. A stranger that was in the kitchen yesterday asked to what nationality you belonged. Your wound is almost healed. [She kisses his head] You won't be up to any more of these silly tricks again, will you, when I am gone?

TREPLIEFF. No, mother. I did that in a moment of insane despair, when I had lost all control over myself. It will never happen again. [He kisses her hand] Your touch is golden. I remember when you were still acting at the State Theatre, long ago, when I was still a little chap, there was a fight one day in our court, and a poor washerwoman was almost beaten to

death. She was picked up unconscious, and you nursed her till she was well, and bathed her children in the washtubs. Have you forgotten it?

ARKADINA. Yes, entirely. [She puts on a new bandage.]

TREPLIEFF. Two ballet dancers lived in the same house, and they used to come and drink coffee with you.

ARKADINA. I remember that.

TREPLIEFF. They were very pious. [A pause] I love you again, these last few days, as tenderly and trustingly as I did as a child. I have no one left me now but you. Why, why do you let yourself be controlled by that man?

ARKADINA. You don't understand him, Constantine. He has a wonderfully noble personality.

TREPLIEFF. Nevertheless, when he has been told that I wish to challenge him to a duel his nobility does not prevent him from playing the coward. He is about to beat an ignominious retreat.

ARKADINA. What nonsense! I have asked him myself to go.

TREPLIEFF. A noble personality indeed! Here we are almost quarrelling over him, and he is probably in the garden laughing at us at this very moment, or else enlightening Nina's mind and trying to persuade her into thinking him a man of genius.

ARKADINA. You enjoy saying unpleasant things to me. I have the greatest respect for that man, and I must ask you not to speak ill of him in my presence.

TREPLIEFF. I have no respect for him at all. You want me to think him a genius, as you do, but I refuse to lie: his books make me sick.

ARKADINA. You envy him. There is nothing left for people with no talent and mighty pretensions to do but to criticise those who are really gifted. I hope you enjoy the consolation it brings.

TREPLIEFF. [With irony] Those who are really gifted, indeed! [Angrily] I am cleverer than any of you, if it comes to that! [He tears the bandage off his head] You are the slaves of convention, you have seized the upper hand and now lay down as law everything that you do; all else you strangle and trample on. I refuse to accept your point of view, yours and his, I refuse!

ARKADINA. That is the talk of a decadent.

TREPLIEFF. Go back to your beloved stage and act the miserable ditch-water plays you so much admire!

ARKADINA. I never acted in a play like that in my life. You couldn't write even the trashiest music-hall farce, you idle good-for-nothing!

TREPLIEFF. Miser!

ARKADINA. Rag-bag!

TREPLIEFF sits down and begins to cry softly.

ARKADINA. [Walking up and down in great excitement] Don't cry! You mustn't cry! [She bursts into tears] You really mustn't. [She kisses his forehead, his cheeks, his head] My darling child, forgive me. Forgive your wicked mother.

TREPLIEFF. [Embracing her] Oh, if you could only know what it is to have lost everything under heaven! She does not love me. I see I shall never be able to write. Every hope has deserted me.

ARKADINA. Don't despair. This will all pass. He is going away to-day, and she will love you once more. [She wipes away his tears] Stop crying. We have made peace again.

TREPLIEFF. [Kissing her hand] Yes, mother.

ARKADINA. [Tenderly] Make your peace with him, too. Don't fight with him. You surely won't fight?

TREPLIEFF. I won't, but you must not insist on my seeing him again, mother, I couldn't stand it. [TRIGORIN comes in] There he is; I am going. [He quickly puts the medicines away in the cupboard] The doctor will attend to my head.

TRIGORIN. [Looking through the pages of a book] Page 121, lines 11 and 12; here it is. [He reads] "If at any time you should have need of my life, come and take it."

TREPLIEFF picks up the bandage off the floor and goes out.

ARKADINA. [Looking at her watch] The carriage will soon be here.

TRIGORIN. [To himself] If at any time you should have need of my life, come and take it.

ARKADINA. I hope your things are all packed.

TRIGORIN. [Impatiently] Yes, yes. [In deep thought] Why do I hear a note of sadness that wrings my heart in this cry of a pure soul? If at any time you should have need of my life, come and take it. [To ARKADINA] Let us stay here one more day!

ARKADINA shakes her head.

TRIGORIN. Do let us stay!

ARKADINA. I know, dearest, what keeps you here, but you must control yourself. Be sober; your emotions have intoxicated you a little.

TRIGORIN. You must be sober, too. Be sensible; look upon what has happened as a true friend would. [Taking her hand] You are capable of self-sacrifice. Be a friend to me and release me!

ARKADINA. [In deep excitement] Are you so much in love?

TRIGORIN. I am irresistibly impelled toward her. It may be that this is just what I need.

ARKADINA. What, the love of a country girl? Oh, how little you know yourself!

TRIGORIN. People sometimes walk in their sleep, and so I feel as if I were asleep, and dreaming of her as I stand here talking to you. My imagination is shaken by the sweetest and most glorious visions. Release me!

ARKADINA. [Shuddering] No, no! I am only an ordinary woman; you must not say such things to me. Do not torment me, Boris; you frighten me.

TRIGORIN. You could be an extraordinary woman if you only would. Love alone can bring happiness on earth, love the enchanting, the poetical love of youth, that sweeps away the sorrows of the world. I had no time for it when I was young and struggling with want and laying siege to the literary fortress, but now at last this love has come to me. I see it beckoning; why should I fly?

ARKADINA. [With anger] You are mad!

TRIGORIN. Release me.

ARKADINA. You have all conspired together to torture me to-day. [She weeps.]

TRIGORIN. [Clutching his head desperately] She doesn't understand me! She won't understand me!

ARKADINA. Am I then so old and ugly already that you can talk to me like this without any shame about another woman? [She embraces and kisses him] Oh, you have lost your senses! My splendid, my glorious friend, my love for you is the last chapter of my life. [She falls on her knees] You are my pride, my joy, my light. [She embraces his knees] I could never endure it should you desert me, if only for an hour; I should go mad. Oh, my wonder, my marvel, my king!

TRIGORIN. Some one might come in. [He helps her to rise.]

ARKADINA. Let them come! I am not ashamed of my love. [She kisses his hands] My jewel! My despair! You want to do a foolish thing, but I don't want you to do it. I shan't let you do it! [She laughs] You are mine, you are mine! This forehead is mine, these eyes are mine, this silky hair is mine. All your being is mine. You are so clever, so wise, the first of all living writers; you are the only hope of your country. You are so fresh, so simple, so deeply humourous. You can bring out every feature of a man or of a landscape in a single line, and your characters live and breathe. Do you think that these words are but the incense of flattery? Do you think I am not speaking the truth? Come, look into my eyes; look deep; do you find lies there? No, you see that I alone know how to treasure you. I alone tell you the truth. Oh, my very dear, you will go with me? You will? You will not forsake me?

TRIGORIN. I have no will of my own; I never had. I am too indolent, too submissive, too phlegmatic, to have any. Is it possible that women like that? Take me. Take me away with you, but do not let me stir a step from your side.

ARKADINA. [To herself] Now he is mine! [Carelessly, as if nothing unusual had happened] Of course you must stay here if you really want to. I shall go, and you can follow in a week's time. Yes, really, why should you hurry away?

TRIGORIN. Let us go together.

ARKADINA. As you like. Let us go together then. [A pause. TRIGORIN writes something in his note-book] What are you writing?

TRIGORIN. A happy expression I heard this morning: "A grove of maiden pines." It may be useful. [He yawns] So we are really off again, condemned once more to railway carriages, to stations and restaurants, to Hamburger steaks and endless arguments!

SHAMRAEFF comes in.

SHAMRAEFF. I am sorry to have to inform you that your carriage is at the door. It is time to start, honoured madam, the train leaves at two-five. Would you be kind enough, madam, to remember to inquire for me where Suzdaltzeff the actor is now? Is he still alive, I wonder? Is he well? He and I have had many a jolly time together. He was inimitable in "The Stolen Mail." A tragedian called Izmailoff was in the same company, I remember, who was also quite remarkable. Don't hurry, madam, you still have five minutes. They were both of them conspirators once, in the same melodrama, and one night when in the course of the play they were suddenly discovered, instead of saying "We have been trapped!" Izmailoff cried out: "We have been rapped!" [He laughs] Rapped!

While he has been talking JACOB has been busy with the trunks, and the maid has brought ARKADINA her hat, coat, parasol, and gloves. The cook looks hesitatingly through the door on the right, and finally comes into the room. PAULINA comes in. MEDVIEDENKO comes in.

PAULINA. [Presenting ARKADINA with a little basket] Here are some plums for the journey. They are very sweet ones. You may want to nibble something good on the way.

ARKADINA. You are very kind, Paulina.

PAULINA. Good-bye, my dearie. If things have not been quite as you could have wished, please forgive us. [She weeps.]

ARKADINA. It has been delightful, delightful. You mustn't cry.

SORIN comes in through the door on the left, dressed in a long coat with a cape, and carrying his hat and cane. He crosses the room.

SORIN. Come, sister, it is time to start, unless you want to miss the train. I am going to get into the carriage. [He goes out.]

MEDVIEDENKO. I shall walk quickly to the station and see you off there. [He goes out.]

ARKADINA. Good-bye, all! We shall meet again next summer if we live. [The maid servant, JACOB, and the cook kiss her hand] Don't forget me. [She gives the cook a rouble] There is a rouble for all three of you.

THE COOK. Thank you, mistress; a pleasant journey to you.

JACOB. God bless you, mistress.

SHAMRAEFF. Send us a line to cheer us up. [TO TRIGORIN] Good-bye, sir.

ARKADINA. Where is Constantine? Tell him I am starting. I must say good-bye to him. [To JACOB] I gave the cook a rouble for all three of you.

All go out through the door on the right. The stage remains empty. Sounds of farewell are heard. The maid comes running back to fetch the basket of plums which has been forgotten. TRIGORIN comes back.

TRIGORIN. I had forgotten my cane. I think I left it on the terrace. [He goes toward the door on the right and meets NINA, who comes in at that moment] Is that you? We are off.

NINA. I knew we should meet again. [With emotion] I have come to an irrevocable decision, the die is cast: I am going on the stage. I am deserting my father and abandoning everything. I am beginning life anew. I am going, as you are, to Moscow. We shall meet there.

TRIGORIN. [Glancing about him] Go to the Hotel Slavianski Bazar. Let me know as soon as you get there. I shall be at the Grosholski House in Moltchanofka Street. I must go now. [A pause.]

NINA. Just one more minute!

TRIGORIN. [In a low voice] You are so beautiful! What bliss to think that I shall see you again so soon! [She sinks on his breast] I shall see those glorious eyes again, that wonderful, ineffably tender smile, those gentle features with their expression of angelic purity! My darling! [A prolonged kiss.]

The curtain falls.

Two years elapse between the third and fourth acts.

ACT IV

A sitting-room in SORIN'S house, which has been converted into a writing-room for TREPLIEFF. To the right and left are doors leading into inner rooms, and in the centre is a glass door opening onto a terrace. Besides the usual furniture of a sitting-room there is a writing-desk in the right-hand corner of the room. There is a Turkish divan near the door on the left, and shelves full of books stand against the walls. Books are lying scattered about on the windowsills and chairs. It is evening. The room is dimly lighted by a shaded lamp on a table. The wind moans in the tree tops and whistles down the chimney. The watchman in the garden is heard sounding his rattle. MEDVIEDENKO and MASHA come in.

MASHA. [Calling TREPLIEFF] Mr. Constantine, where are you? [Looking about her] There is no one here. His old uncle is forever asking for Constantine, and can't live without him for an instant.

MEDVIEDENKO. He dreads being left alone. [Listening to the wind] This is a wild night. We have had this storm for two days.

MASHA. [Turning up the lamp] The waves on the lake are enormous.

MEDVIEDENKO. It is very dark in the garden. Do you know, I think that old theatre ought to be knocked down. It is still standing there, naked and hideous as a skeleton, with the curtain flapping in the wind. I thought I heard a voice weeping in it as I passed there last night.

MASHA. What an idea! [A pause.]

MEDVIEDENKO. Come home with me, Masha.

MASHA. [Shaking her head] I shall spend the night here.

MEDVIEDENKO. [Imploringly] Do come, Masha. The baby must be hungry.

MASHA. Nonsense, Matriona will feed it. [A pause.]

MEDVIEDENKO. It is a pity to leave him three nights without his mother.

MASHA. You are getting too tiresome. You used sometimes to talk of other things besides home and the baby, home and the baby. That is all I ever hear from you now.

MEDVIEDENKO. Come home, Masha.

MASHA. You can go home if you want to.

MEDVIEDENKO. Your father won't give me a horse.

MASHA. Yes, he will; ask him.

MEDVIEDENKO. I think I shall. Are you coming home to-morrow?

MASHA. Yes, yes, to-morrow.

She takes snuff. TREPLIEFF and PAULINA come in. TREPLIEFF is carrying some pillows and a blanket, and PAULINA is carrying sheets and pillow cases. They lay them on the divan, and TREPLIEFF goes and sits down at his desk.

MASHA. Who is that for, mother?

PAULINA. Mr. Sorin asked to sleep in Constantine's room to-night.

MASHA. Let me make the bed.

She makes the bed. PAULINA goes up to the desk and looks at the manuscripts lying on it. [A pause.]

MEDVIEDENKO. Well, I am going. Good-bye, Masha. [He kisses his wife's hand] Good-bye, mother. [He tries to kiss his mother-in-law's hand.]

PAULINA. [Crossly] Be off, in God's name!

TREPLIEFF shakes hands with him in silence, and MEDVIEDENKO goes out.

PAULINA. [Looking at the manuscripts] No one ever dreamed, Constantine, that you would one day turn into a real author. The magazines pay you well for your stories. [She strokes his hair.] You have grown handsome, too. Dear, kind Constantine, be a little nicer to my Masha.

MASHA. [Still making the bed] Leave him alone, mother.

PAULINA. She is a sweet child. [A pause] A woman, Constantine, asks only for kind looks. I know that from experience.

TREPLIEFF gets up from his desk and goes out without a word.

MASHA. There now! You have vexed him. I told you not to bother him.

PAULINA. I am sorry for you, Masha.

MASHA. Much I need your pity!

PAULINA. My heart aches for you. I see how things are, and understand.

MASHA. You see what doesn't exist. Hopeless love is only found in novels. It is a trifle; all one has to do is to keep a tight rein on oneself, and keep one's head clear. Love must be plucked out the moment it springs up in the heart. My husband has been promised a school in another district, and when we have once left this place I shall forget it all. I shall tear my passion out by the roots. [The notes of a melancholy waltz are heard in the distance.]

PAULINA. Constantine is playing. That means he is sad.

MASHA silently waltzes a few turns to the music.

MASHA. The great thing, mother, is not to have him continually in sight. If my Simon could only get his remove I should forget it all in a month or two. It is a trifle.

DORN and MEDVIEDENKO come in through the door on the left, wheeling SORIN in an arm-chair.

MEDVIEDENKO. I have six mouths to feed now, and flour is at seventy kopecks.

DORN. A hard riddle to solve!

MEDVIEDENKO. It is easy for you to make light of it. You are rich enough to scatter money to your chickens, if you wanted to.

DORN. You think I am rich? My friend, after practising for thirty years, during which I could not call my soul my own for one minute of the night or day, I succeeded at last in scraping together one thousand roubles, all of which went, not long ago, in a trip which I took abroad. I haven't a penny.

MASHA. [To her husband] So you didn't go home after all?

MEDVIEDENKO. [Apologetically] How can I go home when they won't give me a horse?

MASHA. [Under her breath, with bitter anger] Would I might never see your face again!

SORIN in his chair is wheeled to the left-hand side of the room.

PAULINA, MASHA, and DORN sit down beside him. MEDVIEDENKO stands sadly aside.

DORN. What a lot of changes you have made here! You have turned this sitting-room into a library.

MASHA. Constantine likes to work in this room, because from it he can step out into the garden to meditate whenever he feels like it. [The watchman's rattle is heard.]

SORIN. Where is my sister?

DORN. She has gone to the station to meet Trigorin. She will soon be back.

SORIN. I must be dangerously ill if you had to send for my sister. [He falls silent for a moment] A nice business this is! Here I am dangerously ill, and you won't even give me any medicine.

DORN. What shall I prescribe for you? Camomile tea? Soda? Quinine?

SORIN. Don't inflict any of your discussions on me again. [He nods toward the sofa] Is that bed for me?

PAULINA. Yes, for you, sir.

SORIN. Thank you.

DORN. [Sings] "The moon swims in the sky to-night."

SORIN. I am going to give Constantine an idea for a story. It shall be called "The Man Who Wished--L'Homme qui a voulu." When I was young, I wished to become an author; I failed. I wished to be an orator; I speak abominably, [Exciting himself] with my eternal "and all, and all," dragging each sentence on and on until I sometimes break out into a sweat all over. I wished to marry, and I didn't; I wished to live in the city, and here I am ending my days in the country, and all.

DORN. You wished to become State Councillor, and--you are one!

SORIN. [Laughing] I didn't try for that, it came of its own accord.

DORN. Come, you must admit that it is petty to cavil at life at sixty-two years of age.

SORIN. You are pig-headed! Can't you see I want to live?

DORN. That is futile. Nature has commanded that every life shall come to an end.

SORIN. You speak like a man who is satiated with life. Your thirst for it is quenched, and so you are calm and indifferent, but even you dread death.

DORN. The fear of death is an animal passion which must be overcome. Only those who believe in a future life and tremble for sins committed, can logically fear death; but you, for one thing, don't believe in a future life, and for another, you haven't committed any sins. You have served as a Councillor for twenty-five years, that is all.

SORIN. [Laughing] Twenty-eight years!

TREPLIEFF comes in and sits down on a stool at SORIN'S feet. MASHA fixes her eyes on his face and never once tears them away.

DORN. We are keeping Constantine from his work.

TREPLIEFF. No matter. [A pause.]

MEDVIEDENKO. Of all the cities you visited when you were abroad, Doctor, which one did you like the best?

DORN. Genoa.

TREPLIEFF. Why Genoa?

DORN. Because there is such a splendid crowd in its streets. When you leave the hotel in the evening, and throw yourself into the heart of that throng, and move with it without aim or object, swept along, hither and thither, their life seems to be yours, their soul flows into you, and you begin to believe at last in a great world spirit, like the one in your play that Nina Zarietchnaya acted. By the way, where is Nina now? Is she well?

TREPLIEFF. I believe so.

DORN. I hear she has led rather a strange life; what happened?

TREPLIEFF. It is a long story, Doctor.

DORN. Tell it shortly. [A pause.]

TREPLIEFF. She ran away from home and joined Trigorin; you know that?

DORN. Yes.

TREPLIEFF. She had a child that died. Trigorin soon tired of her and

returned to his former ties, as might have been expected. He had never broken them, indeed, but out of weakness of character had always vacillated between the two. As far as I can make out from what I have heard, Nina's domestic life has not been altogether a success.

DORN. What about her acting?

TREPLIEFF. I believe she made an even worse failure of that. She made her debut on the stage of the Summer Theatre in Moscow, and afterward made a tour of the country towns. At that time I never let her out of my sight, and wherever she went I followed. She always attempted great and difficult parts, but her delivery was harsh and monotonous, and her gestures heavy and crude. She shrieked and died well at times, but those were but moments.

DORN. Then she really has a talent for acting?

TREPLIEFF. I never could make out. I believe she has. I saw her, but she refused to see me, and her servant would never admit me to her rooms. I appreciated her feelings, and did not insist upon a meeting. [A pause] What more can I tell you? She sometimes writes to me now that I have come home, such clever, sympathetic letters, full of warm feeling. She never complains, but I can tell that she is profoundly unhappy; not a line but speaks to me of an aching, breaking nerve. She has one strange fancy; she always signs herself "The Sea-gull." The miller in "Rusalka" called himself "The Crow," and so she repeats in all her letters that she is a sea-gull. She is here now.

DORN. What do you mean by "here?"

TREPLIEFF. In the village, at the inn. She has been there for five days. I should have gone to see her, but Masha here went, and she refuses to see any one. Some one told me she had been seen wandering in the fields a mile from here yesterday evening.

MEDVIEDENKO. Yes, I saw her. She was walking away from here in the direction of the village. I asked her why she had not been to see us. She said she would come.

TREPLIEFF. But she won't. [A pause] Her father and stepmother have disowned her. They have even put watchmen all around their estate to keep her away. [He goes with the doctor toward the desk] How easy it is, Doctor, to be a philosopher on paper, and how difficult in real life!

SORIN. She was a beautiful girl. Even the State Councillor himself was in love with her for a time.

DORN. You old Lovelace, you!

SHAMRAEFF'S laugh is heard.

PAULINA. They are coming back from the station.

TREPLIEFF. Yes, I hear my mother's voice.

ARKADINA and TRIGORIN come in, followed by SHAMRAEFF.

SHAMRAEFF. We all grow old and wither, my lady, while you alone, with your light dress, your gay spirits, and your grace, keep the secret of eternal youth.

ARKADINA. You are still trying to turn my head, you tiresome old man.

TRIGORIN. [To SORIN] How do you do, Peter? What, still ill? How silly of you! [With evident pleasure, as he catches sight of MASHA] How are you, Miss Masha?

MASHA. So you recognised me? [She shakes hands with him.]

TRIGORIN. Did you marry him?

MASHA. Long ago.

TRIGORIN. You are happy now? [He bows to DORN and MEDVIEDENKO, and then goes hesitatingly toward TREPLIEFF] Your mother says you have forgotten the past and are no longer angry with me.

TREPLIEFF gives him his hand.

ARKADINA. [To her son] Here is a magazine that Boris has brought you with your latest story in it.

TREPLIEFF. [To TRIGORIN, as he takes the magazine] Many thanks; you are very kind.

TRIGORIN. Your admirers all send you their regards. Every one in Moscow and St. Petersburg is interested in you, and all ply me with questions about you. They ask me what you look like, how old you are, whether you are fair or dark. For some reason they all think that you are no longer young, and no one knows who you are, as you always write under an assumed name. You are as great a mystery as the Man in the Iron Mask.

TREPLIEFF. Do you expect to be here long?

TRIGORIN. No, I must go back to Moscow to-morrow. I am finishing another novel, and have promised something to a magazine besides. In fact, it is the same old business.

During their conversation ARKADINA and PAULINA have put up a card-table in the centre of the room; SHAMRAEFF lights the candles and arranges the chairs, then fetches a box of lotto from the cupboard.

TRIGORIN. The weather has given me a rough welcome. The wind is frightful. If it goes down by morning I shall go fishing in the lake, and shall have a look at the garden and the spot--do you remember?--where your play was given. I remember the piece very well, but should like to see again where the scene was laid.

MASHA. [To her father] Father, do please let my husband have a horse. He ought to go home.

SHAMRAEFF. [Angrily] A horse to go home with! [Sternly] You know the horses have just been to the station. I can't send them out again.

MASHA. But there are other horses. [Seeing that her father remains silent] You are impossible!

MEDVIEDENKO. I shall go on foot, Masha.

PAULINA. [With a sigh] On foot in this weather? [She takes a seat at the card-table] Shall we begin?

MEDVIEDENKO. It is only six miles. Good-bye. [He kisses his wife's hand:] Good-bye, mother. [His mother-in-law gives him her hand unwillingly] I should not have troubled you all, but the baby--[He bows to every one] Good-bye. [He goes out with an apologetic air.]

SHAMRAEFF. He will get there all right, he is not a major-general.

PAULINA. Come, let us begin. Don't let us waste time, we shall soon be called to supper.

SHAMRAEFF, MASHA, and DORN sit down at the card-table.

ARKADINA. [To TRIGORIN] When the long autumn evenings descend on us we while away the time here by playing lotto. Look at this old set; we used it when our mother played with us as children. Don't you want to take a hand in the game with us until supper time? [She and TRIGORIN sit down at the table] It is a monotonous game, but it is all right when one gets used to it. [She deals three cards to each of the players.]

TREPLIEFF. [Looking through the pages of the magazine] He has read his own story, and hasn't even cut the pages of mine.

He lays the magazine on his desk and goes toward the door on the right, stopping as he passes his mother to give her a kiss.

ARKADINA. Won't you play, Constantine?

TREPLIEFF. No, excuse me please, I don't feel like it. I am going to take a turn through the rooms. [He goes out.]

MASHA. Are you all ready? I shall begin: twenty-two.

ARKADINA. Here it is.

MASHA. Three.

DORN. Right.

MASHA. Have you put down three? Eight. Eighty-one. Ten.

SHAMRAEFF. Don't go so fast.

ARKADINA. Could you believe it? I am still dazed by the reception they gave me in Kharkoff.

MASHA. Thirty-four. [The notes of a melancholy waltz are heard.]

ARKADINA. The students gave me an ovation; they sent me three baskets of flowers, a wreath, and this thing here.

She unclasps a brooch from her breast and lays it on the table.

SHAMRAEFF. There is something worth while!

MASHA. Fifty.

DORN. Fifty, did you say?

ARKADINA. I wore a perfectly magnificent dress; I am no fool when it comes to clothes.

PAULINA. Constantine is playing again; the poor boy is sad.

SHAMRAEFF. He has been severely criticised in the papers.

MASHA. Seventy-seven.

ARKADINA. They want to attract attention to him.

TRIGORIN. He doesn't seem able to make a success, he can't somehow strike the right note. There is an odd vagueness about his writings that sometimes verges on delirium. He has never created a single living character.

MASHA. Eleven.

ARKADINA. Are you bored, Peter? [A pause] He is asleep.

DORN. The Councillor is taking a nap.

MASHA. Seven. Ninety.

TRIGORIN. Do you think I should write if I lived in such a place as this, on the shore of this lake? Never! I should overcome my passion, and give my life up to the catching of fish.

MASHA. Twenty-eight.

TRIGORIN. And if I caught a perch or a bass, what bliss it would be!

DORN. I have great faith in Constantine. I know there is something in him. He thinks in images; his stories are vivid and full of colour, and always affect me deeply. It is only a pity that he has no definite object in view. He creates impressions, and nothing more, and one cannot go far on impressions alone. Are you glad, madam, that you have an author for a son?

ARKADINA. Just think, I have never read anything of his; I never have time.

MASHA. Twenty-six.

TREPLIEFF comes in quietly and sits down at his table.

SHAMRAEFF. [To TRIGORIN] We have something here that belongs to you, sir.

TRIGORIN. What is it?

SHAMRAEFF. You told me to have the sea-gull stuffed that Mr. Constantine killed some time ago.

TRIGORIN. Did I? [Thoughtfully] I don't remember.

MASHA. Sixty-one. One.

TREPLIEFF throws open the window and stands listening.

TREPLIEFF. How dark the night is! I wonder what makes me so restless.

ARKADINA. Shut the window, Constantine, there is a draught here.

TREPLIEFF shuts the window.

MASHA. Ninety-eight.

TRIGORIN. See, my card is full.

ARKADINA. [Gaily] Bravo! Bravo!

SHAMRAEFF. Bravo!

ARKADINA. Wherever he goes and whatever he does, that man always has

good luck. [She gets up] And now, come to supper. Our renowned guest did not have any dinner to-day. We can continue our game later. [To her son] Come, Constantine, leave your writing and come to supper.

TREPLIEFF. I don't want anything to eat, mother; I am not hungry.

ARKADINA. As you please. [She wakes SORIN] Come to supper, Peter. [She takes SHAMRAEFF'S arm] Let me tell you about my reception in Kharkoff.

PAULINA blows out the candles on the table, then she and DORN roll SORIN'S chair out of the room, and all go out through the door on the left, except TREPLIEFF, who is left alone. TREPLIEFF prepares to write. He runs his eye over what he has already written.

TREPLIEFF. I have talked a great deal about new forms of art, but I feel myself gradually slipping into the beaten track. [He reads] "The placard cried it from the wall--a pale face in a frame of dusky hair"--cried--frame--that is stupid. [He scratches out what he has written] I shall begin again from the place where my hero is wakened by the noise of the rain, but what follows must go. This description of a moonlight night is long and stilted. Trigorin has worked out a process of his own, and descriptions are easy for him. He writes that the neck of a broken bottle lying on the bank glittered in the moonlight, and that the shadows lay black under the mill-wheel. There you have a moonlight night before your eyes, but I speak of the shimmering light, the twinkling stars, the distant sounds of a piano melting into the still and scented air, and the result is abominable. [A pause] The conviction is gradually forcing itself upon me that good literature is not a question of forms new or old, but of ideas that must pour freely from the author's heart, without his bothering his head about any forms whatsoever. [A knock is heard at the window nearest the table] What was that? [He looks out of the window] I can't see anything. [He opens the glass door and looks out into the garden] I heard some one run down the steps. [He calls] Who is there? [He goes out, and is heard walking quickly along the terrace. In a few minutes he comes back with NINA ZARIETCHNAYA] Oh, Nina, Nina!

NINA lays her head on TREPLIEFF'S breast and stifles her sobs.

TREPLIEFF. [Deeply moved] Nina, Nina! It is you--you! I felt you would come; all day my heart has been aching for you. [He takes off her hat and cloak] My darling, my beloved has come back to me! We mustn't cry, we mustn't cry.

NINA. There is some one here.

TREPLIEFF. No one is here.

NINA. Lock the door, some one might come.

TREPLIEFF. No one will come in.

NINA. I know your mother is here. Lock the door.

TREPLIEFF locks the door on the right and comes back to NINA.

TREPLIEFF. There is no lock on that one. I shall put a chair against it. [He puts an arm-chair against the door] Don't be frightened, no one shall come in.

NINA. [Gazing intently into his face] Let me look at you. [She looks about her] It is warm and comfortable in here. This used to be a sitting-room. Have I changed much?

TREPLIEFF. Yes, you have grown thinner, and your eyes are larger than they were. Nina, it seems so strange to see you! Why didn't you let me go to you? Why didn't you come sooner to me? You have been here nearly a week, I know. I have been several times each day to where you live, and have stood like a beggar beneath your window.

NINA. I was afraid you might hate me. I dream every night that you look at me without recognising me. I have been wandering about on the shores of the lake ever since I came back. I have often been near your house, but I have never had the courage to come in. Let us sit down. [They sit down] Let us sit down and talk our hearts out. It is so quiet and warm in here. Do you hear the wind whistling outside? As Turgenieff says, "Happy is he who can sit at night under the roof of his home, who has a warm corner in which to take refuge." I am a sea-gull--and yet--no. [She passes her hand across her forehead] What was I saying? Oh, yes, Turgenieff. He says, "and God help all houseless wanderers." [She sobs.]

TREPLIEFF. Nina! You are crying again, Nina!

NINA. It is all right. I shall feel better after this. I have not cried for two years. I went into the garden last night to see if our old theatre were still standing. I see it is. I wept there for the first time in two years, and my heart grew lighter, and my soul saw more clearly again. See, I am not crying now. [She takes his hand in hers] So you are an author now, and I am an actress. We have both been sucked into the whirlpool. My life used to be as happy as a child's; I used to wake singing in the morning; I loved you and dreamt of fame, and what is the reality? To-morrow morning early I must start for Eltz by train in a third-class carriage, with a lot of peasants, and at Eltz the educated trades-people will pursue me with compliments. It is a rough life.

TREPLIEFF. Why are you going to Eltz?

NINA. I have accepted an engagement there for the winter. It is time for me to go.

TREPLIEFF. Nina, I have cursed you, and hated you, and torn up your photograph, and yet I have known every minute of my life that my heart

and soul were yours for ever. To cease from loving you is beyond my power. I have suffered continually from the time I lost you and began to write, and my life has been almost unendurable. My youth was suddenly plucked from me then, and I seem now to have lived in this world for ninety years. I have called out to you, I have kissed the ground you walked on, wherever I looked I have seen your face before my eyes, and the smile that had illumined for me the best years of my life.

NINA. [Despairingly] Why, why does he talk to me like this?

TREPLIEFF. I am quite alone, unwarmed by any attachment. I am as cold as if I were living in a cave. Whatever I write is dry and gloomy and harsh. Stay here, Nina, I beseech you, or else let me go away with you.

NINA quickly puts on her coat and hat.

TREPLIEFF. Nina, why do you do that? For God's sake, Nina! [He watches her as she dresses. A pause.]

NINA. My carriage is at the gate. Do not come out to see me off. I shall find the way alone. [Weeping] Let me have some water.

TREPLIEFF hands her a glass of water.

TREPLIEFF. Where are you going?

NINA. Back to the village. Is your mother here?

TREPLIEFF. Yes, my uncle fell ill on Thursday, and we telegraphed for her to come.

NINA. Why do you say that you have kissed the ground I walked on? You should kill me rather. [She bends over the table] I am so tired. If I could only rest--rest. [She raises her head] I am a sea-gull--no--no, I am an actress. [She hears ARKADINA and TRIGORIN laughing in the distance, runs to the door on the left and looks through the keyhole] He is there too. [She goes back to TREPLIEFF] Ah, well--no matter. He does not believe in the theatre; he used to laugh at my dreams, so that little by little I became down-hearted and ceased to believe in it too. Then came all the cares of love, the continual anxiety about my little one, so that I soon grew trivial and spiritless, and played my parts without meaning. I never knew what to do with my hands, and I could not walk properly or control my voice. You cannot imagine the state of mind of one who knows as he goes through a play how terribly badly he is acting. I am a sea-gull--no--no, that is not what I meant to say. Do you remember how you shot a seagull once? A man chanced to pass that way and destroyed it out of idleness. That is an idea for a short story, but it is not what I meant to say. [She passes her hand across her forehead] What was I saying? Oh, yes, the stage. I have changed now. Now I am a real actress. I act with joy, with exaltation, I am intoxicated by it, and feel that I am superb. I have been walking and walking, and thinking

and thinking, ever since I have been here, and I feel the strength of my spirit growing in me every day. I know now, I understand at last, Constantine, that for us, whether we write or act, it is not the honour and glory of which I have dreamt that is important, it is the strength to endure. One must know how to bear one's cross, and one must have faith. I believe, and so do not suffer so much, and when I think of my calling I do not fear life.

TREPLIEFF. [Sadly] You have found your way, you know where you are going, but I am still groping in a chaos of phantoms and dreams, not knowing whom and what end I am serving by it all. I do not believe in anything, and I do not know what my calling is.

NINA. [Listening] Hush! I must go. Good-bye. When I have become a famous actress you must come and see me. Will you promise to come? But now--[She takes his hand] it is late. I can hardly stand. I am fainting. I am hungry.

TREPLIEFF. Stay, and let me bring you some supper.

NINA. No, no--and don't come out, I can find the way alone. My carriage is not far away. So she brought him back with her? However, what difference can that make to me? Don't tell Trigorin anything when you see him. I love him--I love him even more than I used to. It is an idea for a short story. I love him--I love him passionately--I love him to despair. Have you forgotten, Constantine, how pleasant the old times were? What a gay, bright, gentle, pure life we led? How a feeling as sweet and tender as a flower blossomed in our hearts? Do you remember, [She recites] "All men and beasts, lions, eagles, and quails, horned stags, geese, spiders, silent fish that inhabit the waves, starfish from the sea, and creatures invisible to the eye--in one word, life--all, all life, completing the dreary round set before it, has died out at last. A thousand years have passed since the earth last bore a living creature on its breast, and the unhappy moon now lights her lamp in vain. No longer are the cries of storks heard in the meadows, or the drone of beetles in the groves of limes----"

She embraces TREPLIEFF impetuously and runs out onto the terrace.

TREPLIEFF. [After a pause] It would be a pity if she were seen in the garden. My mother would be distressed.

He stands for several minutes tearing up his manuscripts and throwing them under the table, then unlocks the door on the right and goes out.

DORN. [Trying to force open the door on the left] Odd! This door seems to be locked. [He comes in and puts the chair back in its former place] This is like a hurdle race.

ARKADINA and PAULINA come in, followed by JACOB carrying some bottles; then come MASHA, SHAMRAEFF, and TRIGORIN.

ARKADINA. Put the claret and the beer here, on the table, so that we can drink while we are playing. Sit down, friends.

PAULINA. And bring the tea at once.

She lights the candles and takes her seat at the card-table. SHAMRAEFF leads TRIGORIN to the cupboard.

SHAMRAEFF. Here is the stuffed sea-gull I was telling you about. [He takes the sea-gull out of the cupboard] You told me to have it done.

TRIGORIN. [looking at the bird] I don't remember a thing about it, not a thing. [A shot is heard. Every one jumps.]

ARKADINA. [Frightened] What was that?

DORN. Nothing at all; probably one of my medicine bottles has blown up. Don't worry. [He goes out through the door on the right, and comes back in a few moments] It is as I thought, a flask of ether has exploded. [He sings]

"Spellbound once more I stand before thee."

ARKADINA. [Sitting down at the table] Heavens! I was really frightened. That noise reminded me of--[She covers her face with her hands] Everything is black before my eyes.

DORN. [Looking through the pages of a magazine, to TRIGORIN] There was an article from America in this magazine about two months ago that I wanted to ask you about, among other things. [He leads TRIGORIN to the front of the stage] I am very much interested in this question. [He lowers his voice and whispers] You must take Madame Arkadina away from here; what I wanted to say was, that Constantine has shot himself.

The curtain falls.

THE SOVIET AND THE REVOLUTION

The Project Gutenberg EBook of *Our Revolution*, by Leon Trotzky

(Fifty Days)

About two years after the arrest of the Soviet of 1905, a number of former leaders of that organization, among them Chrustalyov Nossar, the first chairman, and Trotzky, the second chairman, met abroad after having escaped from Siberian exile. They decided to sum up

their Soviet experiences in a book which they called The History of the Council of Workingmen's Deputies. The book appeared in 1908 in Petersburg, and was immediately suppressed. One of the essays of this book is here reprinted.

In his estimation of the rôle of the Soviet Trotsky undoubtedly exaggerates. Only by a flight of imagination can one see in the activities of the Soviet regarding the postal, telegraph and railroad strikers the beginnings of a Soviet control over post-office, telegraph and railroads. It is also a serious question whether the Soviet was really a leading body, or whether it was led by the current of revolutionary events which it was unable to control. What makes this essay interesting and significant is Trotsky's assertion that "the first new wave of the revolution will lead to the creation of Soviets all over the country." This has actually happened. His predictions of the formation of an all-Russian Soviet, and of the program the Soviets would follow, have also been realized in the course of the present revolution.

1

The history of the Soviet is a history of fifty days. The Soviet was constituted on October 13th; its session was interrupted by a military detachment of the government on December 3rd. Between those two dates the Soviet lived and struggled.

What was the substance of this institution? What enabled it in this short period to take an honorable place in the history of the Russian proletariat, in the history of the Russian Revolution?

The Soviet organized the masses, conducted political strikes, led political demonstrations, tried to arm the workingmen. But other revolutionary organizations did the same things. The substance of the Soviet was its effort to become an organ of public authority. The proletariat on one hand, the reactionary press on the other, have called the Soviet "a labor government"; this only reflects the fact that the Soviet was in reality an embryo of a revolutionary government. In so far as the Soviet was in actual possession of authoritative power, it made use of it; in so far as the power was in the hands of the military and bureaucratic monarchy, the Soviet fought to obtain it. Prior to the Soviet, there had been revolutionary organizations among the industrial workingmen, mostly of a Social-Democratic nature. But those were organizations among the proletariat; their immediate aim was to influence the masses. The Soviet is an organization of the proletariat; its aim is to fight for revolutionary power.

At the same time, the Soviet was an organized expression of the will of the proletariat as a class. In its fight for power the Soviet applied such methods as were naturally determined by the character of the proletariat as a class: its part in production; its numerical strength;

its social homogeneity. In its fight for power the Soviet has combined the direction of all the social activities of the working class, including decisions as to conflicts between individual representatives of capital and labor. This combination was by no means an artificial tactical attempt: it was a natural consequence of the situation of a class which, consciously developing and broadening its fight for its immediate interests, had been compelled by the logic of events to assume a leading position in the revolutionary struggle for power.

The main weapon of the Soviet was a political strike of the masses. The power of the strike lies in disorganizing the power of the government. The greater the "anarchy" created by a strike, the nearer its victory. This is true only where "anarchy" is not being created by anarchic actions. The class that puts into motion, day in and day out, the industrial apparatus and the governmental apparatus; the class that is able, by a sudden stoppage of work, to paralyze both industry and government, must be organized enough not to fall the first victim of the very "anarchy" it has created. The more effective the disorganization of government caused by a strike, the more the strike organization is compelled to assume governmental functions.

The Council of Workmen's Delegates introduces a free press. It organizes street patrols to secure the safety of the citizens. It takes over, to a greater or less extent, the post office, the telegraph, and the railroads. It makes an effort to introduce the eight hour workday. Paralyzing the autocratic government by a strike, it brings its own democratic order into the life of the working city population.

2

After January 9th the revolution had shown its power over the minds of the working masses. On June 14th, through the revolt of the Potyomkin Tavritchesky it had shown that it was able to become a material force. In the October strike it had shown that it could disorganize the enemy, paralyze his will and utterly humiliate him. By organizing Councils of Workmen's Deputies all over the country, _it showed that it was able to create authoritative power_. Revolutionary authority can be based only on active revolutionary force. Whatever our view on the further development of the Russian revolution, it is a fact that so far no social class besides the proletariat has manifested readiness to uphold a revolutionary authoritative power. The first act of the revolution was an encounter in the streets of the _proletariat_ with the monarchy; the first serious victory of the revolution was achieved through the _class-weapon of the proletariat_, the political strike; the first nucleus of a revolutionary government was _a proletarian representation_. The Soviet is the first democratic power in modern Russian history. The Soviet is the organized power of the masses themselves over their component parts. This is a true, unadulterated democracy, without a two-chamber system, without a professional bureaucracy, with the right of the voters to recall their deputy any

moment and to substitute another for him. Through its members, through deputies elected by the workingmen, the Soviet directs all the social activities of the proletariat as a whole and of its various parts; it outlines the steps to be taken by the proletariat, it gives them a slogan and a banner. This art of directing the activities of the masses on the basis of organized self-government, is here applied for the first time on Russian soil. Absolutism ruled the masses, but it did not direct them. It put mechanical barriers against the living creative forces of the masses, and within those barriers it kept the restless elements of the nation in an iron bond of oppression. The only mass absolutism ever directed was the army. But that was not directing, it was merely commanding. In recent years, even the directing of this atomized and hypnotized military mass has been slipping out of the hands of absolutism. Liberalism never had power enough to command the masses, or initiative enough to direct them. Its attitude towards mass-movements, even if they helped liberalism directly, was the same as towards awe-inspiring natural phenomena--earthquakes or volcanic eruptions. The proletariat appeared on the battlefield of the revolution as a self-reliant aggregate, totally independent from bourgeois liberalism.

The Soviet was a _class-organization_, this was the source of its fighting power. It was crushed in the first period of its existence not by lack of confidence on the part of the masses in the cities, but by the limitations of a purely urban revolution, by the relatively passive attitude of the village, by the backwardness of the peasant element of the army. The Soviet's position among the city population was as strong as could be.

The Soviet was not an official representative of the entire half million of the working population in the capital; its organization embraced about two hundred thousand, chiefly industrial workers; and though its direct and indirect political influence was of a much wider range, there were thousands and thousands of proletarians (in the building trade, among domestic servants, day laborers, drivers) who were hardly, if at all, influenced by the Soviet. There is no doubt, however, that the Soviet represented the interests of _all_ these proletarian masses. There were but few adherents of the Black Hundred in the factories, and their number dwindled hour by hour. The proletarian masses of Petersburg were solidly behind the Soviet. Among the numerous intellectuals of Petersburg the Soviet had more friends than enemies. Thousands of students recognized the political leadership of the Soviet and ardently supported it in its decisions. Professional Petersburg was entirely on the side of the Soviet. The support by the Soviet of the postal and telegraph strike won it the sympathy of the lower governmental officials. All the oppressed, all the unfortunate, all honest elements of the city, all those who were striving towards a better life, were instinctively or consciously on the side of the Soviet. The Soviet was actually or potentially a representative of an overwhelming majority of the population. Its enemies in the capital would not have been dangerous had they not been protected by absolutism, which based its power on the most backward elements of an army recruited from peasants. The weakness

of the Soviet was not its own weakness, it was the weakness of a purely urban revolution.

The fifty day period was the period of the greatest power of the revolution. _The Soviet was its organ in the fight for public authority._ The class character of the Soviet was determined by the class differentiation of the city population and by the political antagonism between the proletariat and the capitalistic bourgeoisie. This antagonism manifested itself even in the historically limited field of a struggle against absolutism. After the October strike, the capitalistic bourgeoisie consciously blocked the progress of the revolution, the petty middle class turned out to be a nonentity, incapable of playing an independent rôle. The real leader of the urban revolution was the proletariat. Its class-organization was the organ of the revolution in its struggle for power.

3

The struggle for power, for public authority--this is the central aim of the revolution. The fifty days of the Soviet's life and its bloody finale have shown that urban Russia is too narrow a basis for such a struggle, and that even within the limits of the urban revolution, a local organization cannot be the central leading body. For a national task the proletariat required an organization on a national scale. The Petersburg Soviet was a local organization, yet the need of a central organization was so great that it had to assume leadership on a national scale. It did what it could, still it remained primarily the _Petersburg_ Council of Workmen's Deputies. The urgency of an all-Russian labor congress which undoubtedly would have had authority to form a central leading organ, was emphasized even at the time of the first Soviet. The December collapse made its realization impossible. The idea remained, an inheritance of the Fifty Days.

The idea of a Soviet has become ingrained in the consciousness of the workingmen as the first prerequisite to revolutionary action of the masses. Experience has shown that a Soviet is not possible or desirable under all circumstances. The objective meaning of the Soviet organization is to create conditions for disorganizing the government, for "anarchy," in other words for a revolutionary conflict. The present lull in the revolutionary movement, the mad triumph of reaction, make the existence of an open, elective, authoritative organization of the masses impossible. There is no doubt, however, that _the first new wave of the revolution will lead to the creation of Soviets all over the country_. An All-Russian Soviet, organized by an All-Russian Labor Congress, will assume leadership of the local elective organizations of the proletariat. Names, of course, are of no importance; so are details of organization; the main thing is: a centralized democratic leadership in the struggle of the proletariat for a popular government. History does not repeat itself, and the new Soviet will not have again to go through the experience of the Fifty Days. These, however, will furnish

it a complete program of action.

This program is perfectly clear.

To establish revolutionary coöperation with the army, the peasantry, and the plebeian lower strata of the urban bourgeoisie. To abolish absolutism. To destroy the material organization of absolutism by reconstructing and partly dismissing the army. To break up the entire bureaucratic apparatus. To introduce an eight hour workday. To arm the population, starting with the proletariat. To turn the Soviets into organs of revolutionary self-government in the cities. To create Councils of Peasants' Delegates (Peasants' Committees) as local organs of the agrarian revolution. To organize elections to the Constituent Assembly and to conduct a preëlection campaign for a definite program on the part of the representatives of the people.

It is easier to formulate such a program than to carry it through. If, however, the revolution will ever win, the proletariat cannot choose another. The proletariat will unfold revolutionary accomplishment such as the world has never seen. The history of Fifty Days will be only a poor page in the great book of the proletariat's struggle and ultimate triumph.

SUBJECTS OF STUDY, LECTURES AND EXAMINATIONS

Project Gutenberg's *Life in the Medieval University*, by Robert S. Rait

The student of a medieval University was, as we have seen, expected to converse in Latin, and all instruction was given in that language. It was therefore essential that, before entering on the University curriculum, he should have a competent knowledge of Latin. College founders attempted to secure this in various ways, sometimes by an examination (e.g. at the College of Cornouaille, at Paris no one was admitted a bursar until he was examined and found to be able to read) and sometimes by making provision for young boys to be taught by a master of grammar. The Founder of New College met the difficulty by the foundation of Winchester College, at which all Wykehamists (except the earliest members of New College) were to be thoroughly grounded in Latin. It was more difficult for a University to insist upon such a test, but in 1328, the University of Paris had ordered that before a youth was admitted to the privileges of "scholarship" or studentship, he must appear before the Rector and make his own application in continuous Latin, without any French words. Formulae for this (p. 134) purpose would, doubtless, soon be invented and handed down by tradition, and the precaution cannot have been of much practical value. There were plenty of grammar schools in the Middle Ages, and a clever boy was likely to find a patron and a place of education in the

neighbourhood of his home. The grammar schools in University towns had therefore originally no special importance, but many of the undergraduates who came up at thirteen or fourteen required some training such as William of Waynflete provided for his younger demies in connexion with the Grammar School which he attached to Magdalen, or such as Walter de Merton considered desirable when he ordained that there should be a Master of Grammar in his College to teach the poor boys, and that their seniors were to go to him in any difficulty without any false shame ("absque rubore"). Many universities extended certain privileges to boys studying grammar, by placing their names on matriculation rolls, though such matriculation was not part of the curriculum for a degree. Masters in Grammar were frequently, but not necessarily, University graduates; at Paris there were grammar mistresses as well as grammar masters. The connexion between the grammar schools and the University was exceptionally close at Oxford and Cambridge, where degrees in grammar came to be given. The University of Oxford early legislated for "inceptors" who were taking degrees in grammar, and ordered the grammar masters who were graduates to enrol, *pro forma*, the names of pupils of non-graduates, and to compel non-graduate masters to obey the regulations of the University. A meeting of the grammar masters twice a term for discussions about their subject and the method of teaching it was also ordered by the University, which ultimately succeeded in wresting the right of licensing grammar masters from the Archdeacon or other official to whom it naturally belonged. A fourteenth-century code of statutes for the Oxford grammar schools orders the appointment of two Masters of Arts to superintend them, and gives some minute instructions about the teaching. Grammar masters are to set verses and compositions, to be brought next day for correction; and they are to be specially careful to see that the younger boys can recognise the different parts of speech and parse them accurately. In choosing books to read with their pupils, they are to avoid the books of Ovid "*de Arte Amandi*" and similar works. Boys are to be taught to construe in French as well as in English, lest they be ignorant of the French tongue. The study of French was not confined to the grammar boys: the University recognised the wisdom of learning a language necessary for composing charters, holding lay-courts, and pleading in the English fashion, and lectures in French were permitted at any hour that did not interfere with the regular teaching of Arts subjects. Such lectures were under the control of the superintendents of the grammar masters. (p. 135)

The degrees which Oxford and Cambridge conferred in Grammar did not involve residence or entitle the recipients to a vote in Convocation; but the conferment was accompanied by ceremonies which were almost parodies of the solemn proceedings of graduation or inception in a recognised Faculty, a birch taking the place of a book as a symbol of the power and authority entrusted to the graduand. A sixteenth-century Esquire Bedel of Cambridge left, for the benefit of his successors, details of the form for the "entering of a Master in Gramer." The "Father" of the Faculty of Grammar (at Cambridge the mysterious individual known as the "Master of Glomery") brought his "sons" to St

Mary's Church for eight o'clock mass. "When mass is done, fyrst shall begynne the acte in Gramer. The Father shall have hys sete made before the Stage for Physyke (one of the platforms erected in the church for doctors of the different faculties, etc.) and shall sytte alofte under the stage for Physyke. The Proctour shall say, Incipiat. When the Father hath argyde as shall plesse the Proctour, the Bedeyll in (p. 137) Arte shall bring the Master of Gramer to the Vyce-chancellor, delyveryng hym a Palmer wyth a Rodde, whych the Vyce-chancellor shall gyve to the seyde Master in Gramer, and so create hym Master. Then shall the Bedell purvay for every master in Gramer a shrewde Boy, whom the master in Gramer shall bete openlye in the Scolys, and the master in Gramer shall give the Boy a Grote for Hys Labour, and another Grote to hym that provydeth the Rode and the Palmer &c. de singulis. And thus endythe the Acte in that Facultye." We know of the existence of similar ceremonies at Oxford. "Had the ambition to take these degrees in Grammar been widely diffused," says Dr Rashdall, "the demand for whipping boys might have pressed rather hardly upon the youth of Oxford; but very few of them are mentioned in the University Register."

The basis of the medieval curriculum in Arts is to be found in the Seven Liberal Arts of the Dark Ages, divided into the Trivium (Grammar, Rhetoric and Dialectic) and the Quadrivium (Music, Arithmetic, Geometry and Astronomy). The Quadrivium was of comparatively little importance; Geometry and Music received small attention; and Arithmetic, and Astronomy were at first chiefly useful for finding the date of Easter; but the introduction of mathematical learning from Arabian sources in the thirteenth century greatly (p. 138) increased the scope of Geometry and Arithmetic, and added the study of Algebra.

The Grammar taught in the universities assumed a knowledge of such a text-book as that of Alexander de Villa Dei, and consisted of an analysis of the systems of popular grammarians, based on the section De barbarismo in the Ars Grammatica of Ælius Donatus, a fourth-century grammarian, whose work became universally used throughout Europe. Latin poets were read in the grammar schools, and served for grammatical and philological expositions in the universities, and the study of Rhetoric depended largely on the treatises of Cicero. The "Dialectic" of the Trivium was the real interest of the medieval student among the ancient seven subjects, but the curriculum in Arts came to include also the three Philosophies, Physical, Moral, and Metaphysical. The arms of the University of Oxford consist of a book with seven clasps surrounded by three crowns, the clasps representing the seven Liberal Arts and the crowns the three Philosophies. The universities were schools of philosophy, mental and physical, and the attention of students in Arts was chiefly directed to the logic, metaphysics, physics, and ethics of Aristotle. Up to the twelfth century, Aristotle was known only through the translations into Latin of the sections of the Organon, (p. 139) entitled De Interpretatione and Categoriae, and through the

logical works of Boethius. In the twelfth and thirteenth centuries the range of medieval studies was greatly enlarged by the introduction of other works of Aristotle from translations partly from the Arabic and partly direct from the Greek. The conservatism of the University of Paris at first forbade the study of the new Aristotle, but it soon became universal in the medieval universities. In addition to the works of Aristotle, as they were known in the Middle Ages, medieval students read such books as Porphyry's *Isagoge*, or Introduction to Aristotle; the criticism of Aristotle's *Categories*, by Gilbert de la Porrée, known as the *Sex Principia*; the *Summulae Logicales*, a semi-grammatical, semi-logical treatise by Petrus Hispanus (Pope John XXI.); the *Parva Logicalia* of Marsilius of Inghen; the *Labyrinthus* and *Grecismus* of Eberhard; the Scriptural commentaries of Nicolaus de Lyra; the *Tractatus de Sphaera*, an astronomical work by a thirteenth-century Scotsman, John Holywood (Joannes de Sacro Bosco); and they also studied Priscian, Donatus, Boethius, Euclid, and Ptolemy. In 1431 the *Nova Rhetorica* of Cicero, the *Metamorphoses* of Ovid, and the works of Virgil were prescribed at Oxford as alternatives to the fourth book of the *Topica* of Boethius. By the end of the century Humanism had found a place in the universities, (p. 140) and sixteenth-century colleges at Oxford and Cambridge provided for the study of the literatures of Greece and Rome. In Scotland the medieval teaching of Aristotle reigned supreme in all its three universities until the appointment of Andrew Melville as Principal at Glasgow in 1574, and in 1580 he had some difficulty in persuading the masters at St Andrews to "peruse Aristotle in his ain language."

Lectures were either "ordinary" or "cursory," a distinction which, as Dr Rashdall has shown, corresponded to the "ordinary" and "extra-ordinary" lectures at Bologna. The ordinary lectures were the statutable exercises appointed by the Faculty, and delivered by its properly accredited teachers in the hours of the morning, which were sacred to the prelections of the masters. Cursory lectures were delivered in the afternoon, frequently by bachelors; but as College teaching became more important than the lectures given in the Schools, the distinction gradually disappeared. Ordinary lectures were delivered "solemniter" and involved a slow and methodical analysis of the book. The statutes of Vienna prescribe that no master shall read more than one chapter of the text "*ante quaestionem vel etiam quaestione expedita*." Various references in College and University statutes show that the cursory lecture was not regarded as the (p. 141) full equivalent of an ordinary lecture. At Oxford, attendance on a lecture on the books or any book of the *Metaphysics*, or on the *Physics*, or the *Ethics*, was not to count for a degree, except in the case of a book largely dealing with the opinions of the ancients. The third and fourth books of the *Metaphysics* were excepted from the rule, "they being usually read cursorily, that the ordinary reading of the other books might proceed more rapidly." The cursory lecture was clearly beloved of the pupil, for Oxford grammar masters are reproved for lecturing "cursorie" instead of "ordinarie" for the sake of gain; and at Vienna, the tariff for cursory lectures is double that for

ordinary lectures. At Paris the books of Aristotle de Dialectica were to be read "ordinarie et non ad cursum," and students of medicine had to read certain books "semel ordinarie, bis cursorie." The statutes of Heidelberg contrast "cursorie" with "extense." In the Faculty of Canon Law there was an additional distinction, the ordinary lecture being generally restricted to the Decretum; at Oxford, the book of Decretals is to be read at the morning hours at which the doctors of law are wont to deliver ordinary lectures, and at Vienna the doctors are forbidden to read anything but the Decretals in the morning at ordinary lectures. The instructions given to the Vienna doctors of (p. 142) law illustrate the thoroughness of the medieval lecture in all faculties. They are first to state the case carefully, then to read the text, then to restate the case, then to remark on "notabilia," and then to discuss questions arising out of the subject, and finally, to deal with the Glosses. So, at Oxford, the Masters in Arts are to read the books on logic and the philosophies "rite," with the necessary and adequate exposition of the text, and with questions and arguments pertinent to the subject-matter.

A problem, still unsolved, about the methods of lecturing disturbed the minds of the Parisian masters. Were they to dictate lectures or to speak so fast that their pupils could not commit their words to writing? From the standpoint of teachers who delivered frequent lectures, all of the same type, and on a few set books, it was probably desirable that there should not be opportunities of possessing such copies of a professor's lectures as used to circulate, not many years ago, in Scottish and in German universities. In 1229 the Faculty of Arts at Paris made a statute on the methods of lecturing. It explains that there are two ways of reading books in the liberal arts. The masters of philosophy may deliver their expositions from their chairs so rapidly that, although the minds of their audience may grasp their meaning, their hands cannot write it (p. 143) down. This, they say, was the custom in other faculties. The other way is to speak so slowly that their hearers can take down what they say. On mature reflection, the Faculty has decided that the former is the better way, and henceforth in any lecture, ordinary or cursory, or in any disputation or other manner of teaching, the master is to speak as in delivering a speech, and as if no one were writing in his presence. A lecturer who breaks the new rule is to be suspended for a year, and if the students showed their dislike to it, by shouting, hissing, groaning, or throwing stones, they were to be sent down for a year. More than two hundred years later, in 1452, the statute was rescinded by Cardinal Estoutville, but it was probably never operative. Estoutville permitted either method of lecturing, and contented himself with forbidding lecturers to use questions and lectures which were not of their own composition, or to deliver their lectures (however good) to be read by one of their scholars as a deputy. He instructs the masters to lecture regularly according to the statutes and to explain the text of Aristotle, "de puncto in punctum," and, holding that fear and reverence are the life-blood of scholastic discipline, he repeats an injunction which we find in 1336, that the

students in Arts are to sit not on benches or raised seats, but on (p. 144) the floor, "ut occasio superbiae a juvenibus secludatur." The name of the street in which lectures were given, Vicus Stramineus, is said to have been derived from the straw on which the students sat. The question whether lectures should be committed to writing or not, troubled the masters of other universities besides Paris, and the statutes of the College de Verdale at Toulouse accept, in 1337, the view taken at Paris a hundred years earlier. Since study is a vehement application of the mind, and requires the whole man, the scholars are forbidden to fatigue themselves with too many lectures--not more than two or three a day--and in lecture they are not to take down the lecturer's words, nor, trusting in writings of this kind, to blunt their "proprium intellectum." In the Schools, they must not use "incausta" or pencils except for correcting a book, etc. And what they have been able to retain in their memory they must meditate on without delay.

The insistence on meditation was a useful educational method, but as teaching became more organised, the student was not left without guidance in his meditations. The help which he received outside lectures was given in Repetitions or Resumptions. The procedure at Repetitions may be illustrated from the statutes of the College of Dainville at Paris: "We ordain that all bursars in grammar and (p. 145) philosophy speak the Latin tongue, and that those who hear the same book ordinarily and cursorily shall attend one and the same master (namely, one whom the master [of the College] assigns to them), and after the lecture they shall return home and meet in one place to repeat the lecture. One after another shall repeat the whole lecture, so that each of them may know it well, and the less advanced shall be bound daily to repeat the lectures to the more proficient." A later code of the same College provides that "All who study humane letters shall, on every day of the schools read in the morning a composition, that is a speech in Latin, Greek or the vernacular, to their master, being prepared to expound the writer or historian who is being read in daily lecture in their schools. At the end of the week, that is on Friday or Saturday, they shall show up to their master a résumé of all the lectures they have learned that week, and every day before they go to the schools they shall be bound to make repetitions to one of the philosophers or of the theologians whom the [College] master shall choose; for this work." At Louvain, the time between 5 A.M. and the first lecture (about seven) was spent in studying the lesson that the students might better understand the lecture; after hearing it, they returned to their own rooms to revise it and commit it to memory. After dinner, their books were placed on a table, and all the (p. 146) scholars of one Faculty repeated their lesson and answered questions. A similar performance took place in the two hours before supper. After supper, the tutor treated them for half an hour to a "jocum honestum," and before sending them to bed gave them a light and pleasant disputation. The disputation was a preparation for the disputations which formed part of what we should now term the degree examinations. A thesis was propounded, attacked, and defended ("impugned and

propugned") with the proper forms of syllogistic reasoning.

The teaching, both in lectures and in disputations, was originally University teaching, and the younger Masters of Arts, the "necessary regents," were bound to stay up for some years and lecture in the Schools. They were paid by their scholars, and the original meaning of the word "Collections," still in frequent use at Oxford, is traditionally supposed to be found in the payments made for lectures at the end of each term. Thus, at Oxford, a student paid threepence a term (one shilling a year) to his regent for lectures in Logic, and fourpence a term for lectures in Natural Philosophy. The system was not a satisfactory one, and alike in Paris, in Oxford, and in Cambridge, it succumbed to the growth of College teaching. The Head of a Parisian College, from the first, superintended the studies of (p. 147) the scholars, and, although this duty was not required of an Oxford or Cambridge Head, provision was gradually made in the statutes of English colleges for the instruction of the junior members by their seniors. The first important step in this direction was taken by William of Wykeham, who ordered special payment to be made by the College to Fellows who undertook the tuition of the younger Fellows. His example was followed in this, as in other matters, by subsequent founders both at Oxford and at Cambridge, and gradually University teaching was, in the Faculty of Arts, almost entirely superseded by College tuition. In other universities, lectures continued to be given by University officials.

The medieval undergraduates had a tendency to "rag" in lectures, a tradition which is almost unknown at Oxford and Cambridge, but which persisted till quite recent times in the Scottish universities. Prohibitions of noise and disturbance in lecture-rooms abound in all statutes. At Vienna, students in Arts are exhorted to behave like young ladies (more virginum) and to refrain from laughter, murmurs, and hisses, and from tearing down the schedules in which the masters give notice of their lectures. At Prague, also, the conduct of young ladies was held up as a model for the student at lecture, and, at Angers, students who hissed in contempt of a doctor were to be expelled.

The career of a student was divided into two parts by his (p. 148) "Determination," a ceremony which is the origin of the Bachelor's degree. At Paris, where, at all events in the earlier period of its history, examinations were real, the "Determination" was preceded by "Responsions," and no candidate was admitted to determine until he had satisfied a Regent Master in the Schools, in public, "de Questione respondens." The determination itself was a public disputation, after which the determiner might wear the bachelor's "cappa" and lecture on the Organon. He continued his attendance on the lectures in the Schools up to the time of his "Inception" as a master. The Inception was preceded by an examination for licence and by a disputation known as the Quodlibetica, at which the subject was chosen by the candidate. The bachelor who was successful in obtaining the Chancellor's licence

proceeded to the ceremony of Inception, and received his master's _biretta_.

The stringency of examinations varied in different universities and at different times. The proportion of successful candidates seems to have been everywhere very large, and in some universities rejection must have been almost unknown. We do find references to disappointed candidates, _e.g._ at Caen, where medical students who have been "ploughed" have to take an oath not to bring "malum vel damnum" upon the examiners. But even at Louvain, where the examination system (p. 149) was fully developed in the Middle Ages, and where there were class lists in the fifteenth century (the classes being distinguished as _Rigrosi_, _Transibiles_, and _Gratosi_), failure was regarded as an exceptional event ("si autem, quod absit, aliqui inveniantur simpliciter gratiosi seu refutabiles, erunt de quarto ordine"). The regulations for examinations at Louvain prescribe that the examiners are not to ask disturbing questions ("animo turbandi aut confundendi promovendos") and forbid unfair treatment of pupils of particular masters and frivolous or useless questions; although at his Quodlibeticum, the bachelor might indulge in "jocosas questiones ad auditorii recreationem." The element of display implied in the last quotation was never absent from medieval examinations, and at Oxford, there seems to have been little besides this ceremonial element. A candidate had to prove that he had complied with the regulations about attendance at lectures, etc., and to obtain evidence of fitness from a number of masters. A bachelor had to dispute several times with a master, and these disputations, which were held at the Augustinian Convent, came to be known as "doing Austins." The medieval system, as it lingered at Oxford in the close of the eighteenth century, is thus described by Vicesimus Knox.

"The youth whose heart pants for the honour of a Bachelor of (p. 150) Arts degree must wait patiently till near four years have revolved.... He is obliged during this period, once to oppose and once to respond.... This opposing and responding is termed, in the cant of the place, _doing generals_. Two boys or men, as they call themselves, agree to _do generals_ together. The first step in this mighty work is to procure arguments. These are always handed down, from generation to generation, on long slips of paper, and consist of foolish syllogisms on foolish subjects, of the foundation or significance of which the respondent and opponent seldom know more than an infant in swaddling cloaths. The next step is to go for a _liceat_ to one of the petty officers, called the Regent-Master of the Schools, who subscribes his name to the questions and receives sixpence as his fee. When the important day arrives, the two doughty disputants go into a large dusty room, full of dirt and cobwebs.... Here they sit in mean desks, opposite to each other from one o'clock till three. Not once in a hundred times does any officer enter; and, if he does, he hears a syllogism or two, and then makes a bow, and departs, as he came and remained, in solemn silence. The

disputants then return to the amusement of cutting the desks, carving their names, or reading Sterne's *Sentimental Journey*, or some other edifying novel. When the exercise is duly performed by both parties, they have a right to the title and insignia of *_Sophs_*: but not before they have been formally *_created_* (p. 151) by one of the regent-masters, before whom they kneel, while he lays a volume of Aristotle's works on their heads, and puts on a hood, a piece of black crape, hanging from their necks, and down to their heels.... There remain only one or two trifling forms, and another disputation almost exactly similar to *_doing generals_*, but called *_answering under bachelor_* previous to the awful examination. Every candidate is obliged to be examined in the whole circle of the sciences by three masters of arts *_of his own choice_*.... *_Schemes_*, as they are called, or little books containing forty or fifty questions on each science, are handed down from age to age, from one to another. The candidate employs three or four days in learning these by heart, and the examiners, having done the same before him, know what questions to ask, and so all goes on smoothly. When the candidate has displayed his universal knowledge of the sciences, he is to display his skill in philology. One of the masters therefore asks him to construe a passage in some Greek or Latin classic, which he does with no interruption, just as he pleases, and as well as he can. The statutes next require that he should translate familiar English phrases into Latin. And now is the time when the masters show their wit and jocularity.... This familiarity, however, only takes place when the examiners are pot-companions of the candidate, which indeed is usually the case; for it is reckoned good management to get acquainted with two or three jolly (p. 152) young masters of arts, and supply them well with port previously to the examination. If the vice-chancellor and proctors happen to enter the school, a very uncommon event, then a little solemnity is put on.... As neither the officer, nor anyone else, usually enters the room (for it is reckoned very *_ungenteel_*), the examiners and the candidates often converse on the last drinking-bout, or on horses, or read the newspapers or a novel."

The supply of port was the eighteenth-century relic of the feasts which used to accompany Determination and Inception, and with which so many sumptuary regulations of colleges and universities are concerned. There is a reference to a Determining Feast in the Paston Letters, in which the ill-fated Walter Paston, writing in the summer of 1479, a few weeks before his premature death, says to his brother: "And yf ye wyl know what day I was mead Baschyler, I was maad on Fryday was sevynyth, and I mad my fest on the Munday after. I was promysyd venyson ageyn my fest of my Lady Harcort, and of a noder man to, but I was desevyd of both; but my gestes hewld them plesyd with such mete as they had, blyssyd be God. Hoo have yeo in Hys keeping. Wretyn at Oxon, on the Wedenys day next after Seynt Peter."

A few glimpses of the life of this fifteenth-century Oxonian may (p. 153)

conclude our survey. Walter Paston had been sent to Oxford in 1473, under the charge of a priest called James Gloys. His mother did not wish him to associate too closely with the son of their neighbour, Thomas Holler. "I wold," she says, "Walter schuld be copilet with a better than Holler son is ... howe be it I wold not that he schuld make never the lesse of hym, by cause he is his contre man and neighbour." The boy was instructed to "doo welle, lerne well, and be of good rewle and disposycion," and Gloys was asked to "bydde hym that he be not to hasty of takyng of orderes that schuld bynd him." To take Orders under twenty-three years of age might lead, in Margaret Paston's opinion, to repentance at leisure, and "I will love hym better to be a good secular man than to be a lewit priest." We next hear of Walter in May 1478 when he writes to his mother recommending himself to her "good moderchypp," and asking for money. He has received £5, 16s. 6d., and his expenses amount to £6, 5s. 5d. "That comth over the reseytys in my exspenses I have borrowed of Master Edmund and yt draweth to 8 shillings." He might have applied for a loan to one of the "chests" which benevolent donors had founded for such emergencies, depositing some article of value, and receiving a temporary loan: but he preferred to borrow from his new tutor, (p. 154) Edmund Alyard. By March 1479, Alyard was able to reassure the anxious mother about her boy's choice of a career; he was to go to law, taking his Bachelor's degree in Arts at Midsummer. His brother, Sir John, who was staying at the George at Paul's Wharf in London, intended to be present at the ceremony, but his letter miscarried: "Martin Brown had that same tyme mysch mony in a bage, so that he durst not bryng yt with hym, and that same letter was in that same bage, and he had forgete to take owt the letter, and he sent all togeder by London, so that yt was the next day after that I was maad Bachyler or than the letter cam, and so the fawt was not in me." This is the last we hear of Walter Paston. On his way home, on the 18th August 1479, he died at Norwich, after a short illness. He left a number of "togae" to his Oxford friends, including Robert Holler, the son of his Norfolk neighbour, to whom he also bequeathed "unum pulvinar vocatum _le bolstar_." The rest of his Oxford goods he left to Alyard, but his sheep and his lands to his own family. The cost of his illness and funeral amounted to about thirty shillings. No books are mentioned in the will; possibly they were sold for his inception feast, or he may never have possessed any. As a junior student, he would not have been allowed to use the great library which Humphrey of Gloucester had (p. 155) presented to the University; but there were smaller libraries to which he might have access, for books were sometimes chained up in St Mary's Church that scholars might read them.

SERBIA: STARTING

The Project Gutenberg EBook of *Serbia: A Sketch*, by Helen Leah Reed

Serbia, younger sister of the Nations, has indeed had a younger sister's portion. In her early years she grew up with little guidance from older and wiser members of the family. She did not have the advice that she needed. Perhaps she would not have followed it, though on occasion she has shown more docility than many of the family.

It took her a long time to find herself; she had troubles in her household, and it was her first endeavor to get the factions to unite and let her be the acknowledged head of the house. She believed it was her ultimate destiny to govern them all--that this was for their good.

When she had made herself mistress of her own house, she tried to stand alone--to be independent of her neighbors. She had no wish to dominate them. She did not try to aggrandize herself at their expense, nor did she take up weapons against them. But she wished them to acknowledge her head of her own household, just as those within her house had done. She even was willing to be called a Princess--providing she governed her household well. But almost hidden from the rest of Europe by her mountains, kept by barriers from easy access to the rest of the world, the other Nations paid little attention to her. She grew up almost unnoticed by the world--proud and strong, simple in her tastes, pious in her own way (for her church was not the church of most of her neighbors), and thoughtful, if ill educated.

She was not bookish in those early days; she was too indifferent, perhaps, to letters. Had she kept a journal, we could now embroider her story with more brilliant threads. Her lack of education was perhaps rather her misfortune than her fault. Those who knew her realized her many fine qualities, yet she made few friends beyond her own borders,--and because she was independent and poor, her richer neighbors were suspicious of her and jealous. This one and that one set upon her. They were jealous when she first put on regal robes. They were afraid that she wished to enlarge her possessions at their expense, and one of them, who had assumed complete lordship over Serbia and all her sisters, was constantly threatening her, pretending at times that if she could help him against the foe from Asia who was threatening them both, she should be acknowledged of royal rank. This did not wholly satisfy her. Her ambitions had grown. She herself was reaching out for the Imperial purple. She felt that if she wore it, she might better defend herself and her relatives beyond the mountains from the Asiatic hordes.

Then came the great test--and from then almost until to-day Kossovo has been a day of mourning!

When the fair, gray-eyed ancestors of the modern Serb came south from

their home in Galicia, moving westward from the shores of the Black Sea, along the left bank of the Danube, they crossed the river and occupied the northwest corner of the Balkan Peninsula. How long they had lived in Galicia we need not ask, but they bore with them traditions of a catastrophe in India that was probably the cause of their remote fathers' leaving that country.

Pliny and Ptolemy mention the Serbs, and we know that for one hundred years at least previous to 625 A.D. they were at war with the Empire. The Roman Empire was then slowly disintegrating, and in the Balkans there was no power to protect the Romanized Illyria from the northern invaders who in prehistoric times had driven away the aboriginal inhabitants.

It matters little whether the Emperor Heraclius invited the Serbs to settle down in the northwest Byzantine provinces lately devastated by barbarians, on condition that they would defend the Empire against the Tartar Avars, or whether he merely accepted the fact that they had entered these provinces and must stay there. He made an agreement of peace with the Serbs--and this marks the beginning of their known history. He desired a buffer State, as the neighbors of the Serbs so often have desired in later times. The lands the newcomers then occupied are the Serb lands of to-day--Serbia, Montenegro, Bosnia, Herzegovina, Old Serbia, Macedonia, Dalmatia, the Banat, and to an extent Croatia and Western Bulgaria--practically the ideal Pan-Serbia, but in this little sketch, so far as it is possible, by "Serbia" is meant the Kingdom of Serbia, at the north of the Balkan Peninsula.

The Kingdom of Serbia is bounded by Bosnia, Old Serbia, Bulgaria, Roumania, the Banat, and Slavonia. The boundary rivers are the Danube, on the north separating it from Hungary and on the northeast from Roumania; the Drina, on the northwest from Bosnia; the Save, on the northwest from Croatia and Slavonia; the Timok, on the northeast from Bulgaria. Various mountain ranges on the west separate it from Bosnia, on the south and southwest from Turkey, and on the south and southeast from Bulgaria.

Until the tenth century, except Pliny and Ptolemy, the Emperor Constantine Porphyrogenites is the only historian to speak of the Serbs, and he but briefly; yet their history in those three centuries after their arrival was an epitome of their history in later years in the Balkan Peninsula. The general movement was the same. First, a constant struggle on the one side to establish a union of the jupantias and on the other side a constant resistance to such centralization. A jupantia may be roughly defined as a county within whose limits lived clans more or less related to one another. The ruler was a Jupan, and it was not strange that the more powerful Jupans should tend to absorb their weaker neighbors. The successful man took the title of Grand Jupan. Jealousy of the Grand Jupan would lead to assassination, dethronement, and decentralization--and then would come a repetition of the violent and bloody story.

Another element of disorder in Serbia was the ancient Slavonic rule that a Jupan might be succeeded, not by his son but by the oldest member of his family. It was hardly to be counted against a strong Jupan that he should try to arrange for his son to succeed him--yet this added to the troubles of the Serbs.

A third and later cause of Serb trouble was the Church. The Greek Emperor and the Greek Church on the one side, and the Roman Catholic Church represented by Venice and Hungary on the other, were continually warring, not only for territory but for influence in the Serb provinces. Yet in spite of apparent wavering, the Serbs from the time they adopted Christianity have been constant to the Church of their early choice.

Finally, the founding in the seventh century of the Bulgarian kingdom, on the eastern and southeastern frontiers of Serbia, added to the dangers of this tempestuous little nation. After the Frank and Bulgarian Emperors in the first quarter of the ninth century had for some time wrangled over the Serbian tribes, the Bulgarians at last succeeded in placing a garrison in Belgrade. The Bulgarians ruled Rascia for seven years, but it was like ruling an uninhabited land, as the larger part of the Serbians had run away to Croatia.

Almost two hundred years after the agreement with Heraclius the Serbs had a strong Jupan who carried out the principles of concentration. This Visheslav was probably a descendant of that Visheslav who had signed the agreement with the Greek Emperor. His descendants, of whom the greatest was Vlastimir, for three generations contributed to the unity of Serbia by defending it against Bulgar and Frank, who were constantly menacing even when not directly attacking. Towards the end of the ninth century, in 871, under Basil the Macedonian, the Serbs acknowledged again the suzerainty of the Greek Empire and accepted Christianity. This was in the reign of Mertimir, but after his death almost all of the Greek Serb provinces were lost to Tsar Simeon of Bulgaria.

Though Serbia recovered part of her lost provinces, she could not hold them. The political center of the Serbs had moved to Zeta (Montenegro) and the mystic Prince Jovan Vladimir in the latter part of the tenth century, sometimes called King of Zeta, tried in vain to stop the triumphal march of Tsar Samuel of Bulgaria through the Serb provinces. He himself was taken a prisoner to Samuel's court, where he married the Tsar's daughter, Kossara. He returned to Zeta as reigning Prince under the suzerainty of Bulgaria, but in 1015 he was murdered by Samuel's heir, and he now is venerated as a saint in Serbia. The first Serb novel, "Vladimir and Kossara," published in the thirteenth century, is founded on the life of this Prince.

Zeta was too far from the racial center of Serbia to be a good political center and soon the disintegration of the first Serb kingdom began. Although Serbia recovered the provinces Bulgaria had taken, she was unable to stand alone, and grudgingly accepted Greek suzerainty until

Prince Voislav--cousin of Vladimir of Zeta--started a successful revolt against the Greeks and united under his own rule Zeta, Trebinje, and Zahumle. His son, Michel Voislavich, annexed the Jupanias of Rascia. In 1072 he proclaimed himself King and received the crown from Gregory VII. This was an effort to free Serbia from the Greek overlordship, as expressed in the Greek Church. In the next reign Serbia became better known to the world when she welcomed the Crusaders under Raymond of Toulouse, passing through on their way to the Holy Land. Then came brighter days for Serbia. Stephen Nemanya, Grand Jupan of Rascia, who lived near Novi Bazar (1122-1199), planned the union of all the jupanias in one kingdom under one king. This he practically accomplished, for though unable to include Bosnia, within ten years of his accession he had almost doubled his territory.

Later, when Stephen's ambition grew, he received Frederick Barbarossa, passing through with his Crusaders, and gave him every honor due the Empire when he visited Nish in 1188, and treated him so liberally that Barbarossa--at least this is something more than rumor--was considering a marriage between his son and Stephen's daughter when death put an end to the alliance. In the next reign the Emperor Henry VI planned, with the help of the Serbs, to conquer the Byzantine Empire. But again death took the Emperor before the plans were completed.

Another notable act of Stephen's was his attack on the Greek provinces as an ally of the King of Hungary. Stephen Nemanya assumed the double-eagle as the insignia of his dignity, but though he founded the first real Kingdom of Serbia, and was called King, he was never crowned.

Toward the close of his distinguished career, in 1196, weary of the world, he withdrew to the Monastery Helinder on Mt. Athos, where years before his youngest son Rastko had retired. Stephen died after three years of monastic life. The historic records of Serbia begin with his reign.

Rastko, known in the Church as Sava and afterwards canonized, was a man of active temperament--a statesman as well as a churchman. He used his wisdom and his learning to benefit his country.

Stephen, son of Nemanya, was the first crowned King of Serbia. He kept off foreign enemies, and Serbia, no longer dreading attacks, began to develop some of her mineral resources. She made a beginning, too, of educating her people. In the next two or three generations of rulers there were quarrels among members of the ruling family. Outside, too, the Magyars began to press upon the little kingdom. But on the whole Serbia was united,--mindful, perhaps, of St. Sava's motto: "Only Union is Serbia's Salvation."

Stephen the Sixth, or "The Great," won victories over the Greek Emperors, the Tartars, and the Bulgarians. He helped the Greek Emperor against the Turks, now becoming formidable, and as part of his reward had the Emperor's daughter given him in marriage. But this led to

domestic unhappiness in his later years and some loss of territory. For his wife tried to keep his son Stephen from his inheritance. In turn, Stephen's party set upon the King and choked him to death. Though Stephen Dushan may have had no hand in it, this murder clouds his reputation. Stephen Dushan is a contradictory character--by some regarded as the murderer of his father, by others an idealist to be compared with King Arthur or with Roland. Stephen Dushan (Detchanski), great-grandson of Stephen Nemanya, came to the throne in 1331 and in ten years had gained Albania and Epirus and finally all Macedonia except Salonika. He was practically suzerain of Bulgaria. He freed the Church, which long since had drifted from Rome back to Byzance. Now he made it independent of the Greek Emperor, constituting the Archbishop of Petch, Archbishop, or rather Patriarch, of Serbia.

Noted both as a soldier and a statesman, Stephen had wider plans than Vlasimir or Nemanya. The Turks were now looming dangerously in the East. The Greek Empire was tottering. With it, the rest of Eastern Europe might fall, including little Serbia--one of the smallest of all the little principalities. But Serbia, if small, was brave, and Dushan hoped to proclaim a Serbo-Greek Empire to head off the Asiatic hordes. To accomplish this he took certain territory from the Greek Empire and, proclaiming himself Emperor of the Serbs and Greeks, was solemnly crowned at Uksub at Easter, 1346. Nine years later he tried to unite Bulgars and Serbs and Greeks against the Turks. With a large army of about one hundred thousand trained soldiers he was almost at the gates of Constantinople when a sudden illness overtook him and he died.

Under Dushan Serbia had very nearly reached her highest ambition--complete dominion over the Balkan Peninsula. Dushan ruled also a large part of the former Byzantine lands in Europe.

Of farther-reaching good for Serbia than his territorial conquests was the Zakonik or Code of Laws, completed in 1354 under Dushan's direction. It contained not only the best of the old, but many new, laws resulting from Dushan's knowledge of his country's needs. It ranks high among medieval codes of law. After his death, his empire separated itself into its elements--a number of small states whose rulers were fighting one another while the Turks were subduing Thrace.

With the death of Dushan in 1355 the greatness of Serbia also passed away. His son, Urosh, could not hold what his father had gained, and little by little parts of his Empire fell off from the center, until but a small fragment remained. Yet there were still many stout-hearted Serbs--many who wished to do their utmost to throw off the Turks now pressing upon them. When Urosh died childless, the direct Nemanya dynasty came to an end, but in 1371 Lazar Grebelyanovitch of the Nemanya family was elected ruler of the Serbs. Though called Tsar, he would not formally take the title. Devoted to his country, he threw all his energy into forming a Christian League against the Turks.

But the wily Oriental circumvented him by attacking the members of the

League one by one. For nearly twenty years after that there were many encounters between Turks and Serbians. At the first attack on Nish, Serbia so humbled herself as to agree to pay tribute in gold and in soldiers for the Sultan's armies on condition the Turks would leave her alone.

Later Lazar did his utmost to save poor Serbia from further disgrace. He united with the Ban of Bosnia, also a descendant of Stephen Nemanya, and together they gained many small victories. After once defeating the invading Turks under Murat I the Serbs had to stand a second time opposed to Murat and a well-trained force of Turkish soldiers. Against the Turks were drawn up the full strength of Serbia, Albania, and Bosnia.

There on the field of Kossovo, the "field of blackbirds," June 15, 1389, was fought one of the decisive battles of history. It was a bitter defeat for Serbia, though as many Turks as Serbs perished on the field. On the eve of the battle Murat I had been assassinated. The brave Lazar with the flower of the Serb nation lay dead--Lazar first made prisoner, then beheaded. Of all Serbian rulers, the memory of Lazar was held the dearest. "A pious and generous prince, a brave but unsuccessful general."

There was no longer any question as to supremacy in the Balkan Peninsula. The independence of Serbia and the liberties of all the smaller states were now the property of the unspeakable Turk.

Lazar, it is said, was warned of his fate by a letter from Heaven even before the battle, but he still went forward to fight for his country. Bowring's translation of the heroic pesma (Battle of Kossovo) gives an idea of this event. Before the battle Lazar receives the mysterious letter:

"Tzar Lasar! thou tzar of noble lineage!
Tell me now, what kingdom hast thou chosen?
Wilt thou have heaven's kingdom for thy portion,
Or an earthly kingdom? If an earthly,
Saddle thy good steed--and gird him tightly;
Let thy heroes buckle on their sabres,
Smite the Turkish legions like a tempest,
And these legions all will fly before thee.
But if thou wilt have heaven's kingdom rather,
Speedily erect upon Kossova,
Speedily erect a church of marble;
Not of marble, but of silk and scarlet;
That the army, to its vespers going,
May from sin be purged--for death be ready;
For thy warriors all are dooméd to stumble;
Thou, too, prince, wilt perish with thy army!"

When the Tzar Lasar had read the writing,

Many were his thoughts and long his musings.
"Lord, my God! what--which shall be my portion,
Which my choice of these two proffer'd kingdoms?
Shall I choose heaven's kingdom? shall I rather
Choose an earthly one? for what is earthly
Is as fleeting, vain, and unsubstantial;
Heavenly things are lasting, firm, eternal."

So the Tzar preferr'd a heavenly kingdom
Rather than an earthly. On Kossova
Straight he built a church, but not of marble;
Not of marble, but of silk and scarlet.
Then he calls the patriarch of Servia,
Calls around him all the twelve archbishops,
Bids them make the holy supper ready,
Purify the warriors from their errors,
And for death's last conflict make them ready.

So the warriors were prepared for battle,
And the Turkish hosts approach Kossova.
Bogdan leads his valiant heroes forward,
With his sons--nine sons--the Jugocichi,
Sharp and keen--nine gray and noble falcons.
Each led on nine thousand Servian warriors;
And the aged Jug led twenty thousand.

With the Turks began the bloody battle.
Seven pashas were overcome and scatter'd,
But the eighth pasha came onward boldly,
And the aged Jug Bogdan has fallen.

.... * * * *

Then Lasar, the noble lord of Servia,
Seeks Kossova with his mighty army;
Seven and seventy thousand Servian warriors.
How the infidels retire before him,
Dare not look upon his awful visage!
Now indeed begins the glorious battle.
He had triumph'd then, had triumph'd proudly,
But that Vuk--the curse of God be on him!
He betrays his father at Kossova.

So the Turks the Servian monarch vanquish'd,
So Lasar fell--the Tzar of Servia--
With Lasar fell all the Servian army.
But they have been honor'd, and are holy,
In the keeping of the God of heaven.

All that the Nemanyas, all that the Serbian people had done toward
national unity was destroyed at Kossovo. Throughout Serb lands, the

anniversary of Kossovo is still kept as a memorial day for all Serbian heroes, both for those who fell then and those who have since fallen in defense of their country.

For seventy years after Kossovo, Serbia, though nominally ruled by despots, was really subsidiary to the Sultan. George Brankovitch, one of the despots, worked for an alliance between Serbia and Hungary to overthrow the Turks. The Turks were defeated at Kunovista, and lands previously taken were restored to him. This brave man died at the age of ninety of wounds received in a duel with a Hungarian nobleman. But in spite of the efforts of Brankovitch, the days of Serbia were numbered. In 1459 she became a Pashilik under the direct government of the Porte--and this was her condition for nearly three hundred and fifty years.

If in her darkest hour some strong nation had sympathized with Serbia, her future might have been different. The nations of Europe were now having a revival of life--a renaissance--but they had no thought of Serbia, their young sister. She was hidden among her mountains and she made no outcry. She had tried to do what she could for herself. She had had her moments of power and happiness. Now came a long, long night.

[Illustration: CHURCH AT RAVINITZA--WHERE LAZAR WAS BURIED]

In the darker days many Serbs fled to the mountains, sometimes to carry on their occupation of farmer so far as they could, unmolested by the Turk; sometimes to become Haiduks--the Robin Hoods of the mountains and forests--to steal from the Moslem when it was possible, to give to the poor Serb; always to keep up an unceasing guerrilla warfare.

Serbians were sold as slaves by the ten thousands to Constantinople and to Egypt. Whenever they could, they fled their country to Venice, to Dalmatia, to Hungary. Those who stayed in Serbia were not meek and so far as they could they resisted their oppressor. The Church was the mainstay of the nation; indeed, even to-day, the Serbian Church is a national rather than a religious organization. Before the end of Serb power came, southern Hungary had begun to receive many Serbian immigrants; by the middle of the sixteenth century they were numerous along the borders of Croatia and Slavonia. Although to a large extent farm laborers, they were soldiers as well, and fought in many battles for Austria. In the latter part of the fifteenth and the early part of the sixteenth century, the Serbs in the Hungarian army formed the famous "Black Legion" and won great fame. In the latter part of the seventeenth century thirty-seven thousand Serbians went in a body to South Hungary, and fifty years later one hundred thousand, migrating to Russia, formed a colony by themselves. In 1690 the Emperor Leopold had granted a fair amount of liberty, civil as well as religious, to the large organized body of Serbs who had settled in South Hungary. Their privileges were from time to time confirmed, especially when the Emperor needed help from the Serbs against some one of his numerous enemies. At other times the Serbs in Hungary had no flowery path. Austria was always playing

fast and loose with them, and at last, toward the end of the eighteenth century, though Austria was treating them well, they saw they had little cause to hope that she would free them from the Turkish yoke. The ancient ill will of Hungary against Serbia persisted, and sometimes laws passed in her favor by Austria were in the end suppressed or nullified by Hungarian efforts.

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Project #1655

Mrs. Genevieve W. Chandler
Murrells Inlet, S. C.
Georgetown County

MOM HAGAR
(Verbatim Conversation)

Mom Hagar Brown lives in her little weathered cabin on forty odd acres left by her husband, Caleb Brown. Caleb died in Georgia where he had been sent to the penitentiary for stealing a hog that another man stole. Aunt Hagar has grands settled all around her and she and the grands divide up the acreage which is planted in corn, sweet potatoes, cotton, and some highland rice. She ministers to them all when sick, acts as mid-wife when necessary, and divides her all with her kin and friends--white and black. She wages a war on ground-moles, at which she laughs and says she resembles. Ground-mole beans almost a foot long protect and decorate her yard. She has apple and fig trees, and scuppernong grape vines grow rank and try to climb all her trees.

(Monday morning she hobbles up on a stick--limping and looking sick.)
Comes in kitchen door.

Lillie: "Aunt Hagar, how you?"

Hagar: "Painful. Doctor tell me I got the tonsil. Want to represent me one time and take them out. I say, 'No Doctor! Get in hospital, can't get out! Let me stay here till my change come.' Yeddy? I ain't wuth! Ain't wuth! Ain't got a piece o' sense. Yeddy? Ellen say she want God to take she tomorrow? When you ready it's 'God take me now! All right son!'" (Greeting Zackie who enters kitchen.)

Zackie: "Aunt Hagar, how you feel?"

Hagar: "I ain't wuth son. How's all?"

Zackie: "Need a little more grits!"

Lillie: "Hear Zackie! Mom Hagar, that ain't hinder him ordering another!" (The fact that food is scarce doesn't limit Zackie's family.)

Hagar: "You hear bout this Jeremiah broke in somewhere--get all kinds likker and canned things and different thing?"

Zackie: "Must a broke in that place call 'Stumble Inn!' (Very seriously.) That Revenue man been there."

Hagar: "I yeddy last night! Say he there in news-paper. Mary say, 'see 'em in paper!' Mrs. White gone to child funeral. That been in paper too. Mary see that in paper. Easter say old lady gone dere. Doctor say better go. Child sick. Child seven years old. Fore they get there tell 'em say, 'Child dead!'

"People gone in patch to pick watermillon. Ain't want child to go. You know chillun! Child gone in. Ain't want 'em for go. You know. Child pick watermillon. Ketch up one--I forgotten what pound they say. Roll. Roll duh watermillon. Roll 'em on snake! They say, 'Snake bite 'em?' Child say, 'No. Must a scratch.' See blood run on boy leg. Child get unconscion that minute. Gone right out. Jess so. Ease out so. I cry. I cry!"

Lillie: "You know 'em, Mom Hagar?"

Hagar: "No! No! Lill, fever got me! Cold get me till my rump dead. Got hospital boy rouse one time say, 'Ma, less go home! Red stripe snake bite me.'"

* * * *

Hagar: "Klu Klux?" (Chin cupped in hand--elbow on knee--looking way off--)

"Reckon that the way them old timey people call 'em. Have to run way, you go church. Going to come in to ketch you or do any mischievous thing--come carry you place they going beat you--in suit of white. Old white man to Wilderness Plantation. Parish old man name. Treat his wife bad. Come to house, ain't crack. Come right in suit of white. Drag him out--right to Woodstock there where Mr. Dan get shoot. Put a beating on that white man there till he mess up! Oman never gone back to him yet!"

"A man wuz name (I forgot what the man name wuz)--wuz a white man mess round wid a colored woman and they didn't do a God thing but gone and put a beating on you, darling! Come in. Grab you and go. Put a beating on you till you can't see. Know they got a good grub to lick you wid. They git done you can't sit down. Ain't going carry you just for play with."

"Mom Hagar, you want vote?"

Hagar: "Oh my God!"

"Aunt Hagar are the colored people happier now than the old timey slavery time people?"

Hagar: "Young people now got the world by force. Don't care. Got more trick than law low. Tricky! Can't beat the old people. Can't equal to 'em. Some the young people you say 'AMEN' in church they make fun o' you. Every tub stand on his own bottom. Can't truss 'em.

"Ma say some dem plan to run way. Say, 'Less run! Less run!' Master ketch dem and fetch dem in. Lay 'em cross barrel. Beat dem till they wash in blood. Fetch 'em back. Place 'em cross the barrel--hogsket barrel--Christ! They ramp wash in blood! Beat Ma sister. He sister sickly. Never could clear task--like he want. My Ma have to work he self to death to help Henritta so sickly. Clear task to keep from beat. Some oversheer mean. Oaks labor. (Meaning her Ma and ma's family were laboring on Oaks Plantation--the plantation where Gov. Joseph Allston and Theodosia his wife lived on Waccamaw.) Mother Sally Doctor. Ma got four chillun. One was Emmeline, one Getty, one Katrine one Hagar! I older than Gob (Katrine). Could a call doctor for Gob if I had any sense." (Big nuff to gone for doctor when Gob born.)

"Stay in the field!
Stay in the field!
Stay in the field till the war been end!"

(This is Aunt Hagar's favorite song)

Mom Hagar Brown--age 77
Murrells Inlet, S. C.
July 4th, 1937.

Project #-1655
Mrs. Genevieve W. Chandler
Murrells Inlet, S. C.
Georgetown County

(Some recollections of Mom Hagar Brown)

Visitor: "Mom Hagar, how old did you say you were?"

Hagar: "Don't take care of my age! Had me gang of chillun when ma die. I had Samuel, I had Elias, I had Arthur, I had Beck. Oh, my God! Man, go

way! I had Sally! I had Sally again. I didn't want to give the name 'Sally' again. Say, 'First Sally come carry girl.' Ma say, 'Gin 'em name 'Sally!' I faid (afraid) that other one come back for him. Had to do what Ma say. Had to please 'em. Ma name Sally. Ma chillun Catrine, Hagar, Emmeline, Gettie. I born Columbia. Come Freedom, when we left Columbia, ma finer till we get in Charston. Freedom come, battle till we get 'Oaks.' (Battled till they reached the 'Oaks Plantation--') Stay there till people gin (begin) move bout. Come Watsaw. Gone 'Collins Creek.' In the 'Reb Time' you know, when they sell you bout--Massa sell you all about. Broke through them briar and branch and thing to go to church. Them patrol get you. Church 'Old Bethel.' You don't know 'em. Been gone!

"I yeddy ma! (heard my mother) Ma say, 'I too glad my chillun aint been here Rebs time! Gin you task you rather drown than not done that task! Ma say Auntie poor we weak creeter, couldn't strain. Ma had to strain to fetch sister up with her task. Dere (there) in rice-field. Ma say they on flat going to islant (island), see cloud, pray God send rain! When rooster crow, say they pray God to stop 'em! Rooster crow, broke up wedder! When rooster crow, scare 'em. Broke up rain! Ma say they drag the pot in the river when the flat going cross. Do this to make it rain. Massa! Don't done you task, driver wave that whip, put you over the barrel, beat you so blood run down! I wouldn't take 'em! Ma say, 'I too glad my chillun aint born then!"

"Any cash money? Where you gwine get 'em? Only cash the gospel! Have to get the gospel. Give you cloth! Give you ration! Jess (just according) many chillun you got. Ma say chillun feed all the corn to the fowl.

Chillun say,

'Papa love he fowl!
Papa love he fowl!
Three peck a day!
Three peck a day!

"Parent come to door. Not a grain of corn leave! Poor people! Come, drop! Not a grain! Everybody on the hill help. One give this; one give that. Handle 'em light! (Very careful with victuals). Gone you till Saddy (Saturday.) (Will last you until Saturday when you are rationed again.)

"When Ma get down, she say, 'I gone leave! I gone leave here now! But, oh, Hagar! Be a mudder and fadder for Katrine!"

"I say, (I call Katrine 'Gob') I say, 'Better tell Gob to look atter me!"

"Ma say, 'When I gone I ax the Master when he take me, to send drop o' rain to let true believer know I gone to Glory!"

"When they lift the body to take 'em to the church, rain, 'Tit! Tit!
Tit! Tit!' on the house! At the gate, moon shine out' Going to the
church! Bury to the 'Oaks.'

"Gob say, 'Titty, all you chillun bury at Oaks. Ma to Oaks. How come you
wanter bury Watsaw?"

"I say, 'When the trumpet sound, I yeddy!' (When the trumpet sounds,
I'll hear it!)

"I marry right to Collins Creek hill. Big dance out the door! I free! I
kick up! Ma, old rebs time people!"

Mom Hagar Brown
Age--(She says 'Born first o'
Freedom' but got her age from
a contemporary and reported 77)
Murrells Inlet, S. C.

Project #-1655
Mrs. Genevieve W. Chandler
Murrells Inlet, S. C.
Georgetown County

EX-SLAVE STORY
(Verbatim)

"My old man can 'member things and tell you things and he word carry. We
marry to Turkey Hill Plantation. Hot supper. Cake, wine, and all. Kill
cow, hog, chicken and all. That time when you marry, so much to eat!
Finance wedding! Now--

"We 'lamp-oil chillun'; they 'lectric light' chillun now! We call our
wedding 'lamp-oil wedding'. Hall jam full o' people; out-of-door jam
full. Stand before the chimbley.

"When that first war come through, we born. I don't know just when I
smell for come in the world.

"Big storm? Yinnah talk big storm hang people up on tree? (Noah!) Shake?
I here in house. House gone, 'Rack-a-rack-a-racker!"

"My husband run out--with me and my baby left in bed! Baby just come in
time of the shake.

"When I first have sense, I 'member I walk on the frost bare-feet.
Cow-belly shoe.

"My husband mother have baby on the flat going to Marion and he Auntie Cinda have a baby on that flat.

"From yout (youth) I been a Brown and marry a Brown; title never change.

"Old timey sing?

1.

"Wish I had a hundred dog
And half wuz hound!
Take it in my fadder field
And we run the rabbit down!
Chorus: Now he hatch
He hatch!
He hatch!
And I run the rabbit down!

2.

"I wish I had a hundred head o' dog
And half of them wuz hound
I'd take 'em back in my bacco field
And run the rabbit down.
Chorus: Now he hatch--he hatch!
He hatch--he hatch!
Now he hatch--he hatch!
And I run them rabbit down!"

"That wuz a sing we used to have on the plantation. Then we make up sing--we have sing for chillun. Make 'em go sleep. Every one have his own sing.

"Bye-o-baby!
Go sleepy!
Bye-o-baby!
Go sleepy!
What a big alligator
Coming to catch
This one boy!"

"Diss here the Watson one boy child!
Bye-o-baby go sleepy!
What a big alligator
Coming to catch this one boy!"

Emmie Jordan: "Missus, I too plague with bad heart trouble to give you the sing!"

Song and conversation Given by

Mom Louisa Brown (Born time of 'Reb people War')
Waverly Mills, S. C.
Near Parkersville, S. C.

Project -1655
Jessie A. Butler
Charleston, S. C.
Approximately 930 words

FOLKLORE

Stories from Ex-slaves
Henry Brown
Ex-slave Age 79

Henry Brown, negro caretaker of the Gibbes House, at the foot of Grove street, once a part of Rose Farm, is a splendid example of a type once frequently met with in the South. Of a rich brown complexion, aquiline of feature, there is none of the "Gullah" about Henry. He is courteous and kindly in his manner, and speaks more correctly than the average negro.

"My father was Abram Brown, and my mother's name was Lucy Brown," he said. "They were slaves of Dr. Arthur Gordon Rose. My grandfather and grandmother were grown when they came from Africa, and were man and wife in Africa. I was born just about two years before the war so I don't remember anything about slavery days, and very little about war times, except that we were taken to Deer Pond, about half mile from Columbia. Dr. Rose leased the place from Dr. Ray, and took his family there for safety. My mother died while he was at Deer Pond, and was buried there, but all the rest of my people is buried right here at Rose Farm. My two brothers were a lot older than me, and were in the war. After the war my brother Tom was on the police force, he was a sergeant, and they called him Black Sergeant. My brother Middleton drove the police wagon: they used to call it Black Maria.

"My father, Abram Brown, was the driver or head man at Rose plantation. Dr. Rose thought a heap of him, and during the war he put some of his fine furniture and other things he brought from England in my father's house and told him if the Yankees came to say the things belonged to him. Soon after that the soldiers came. They asked my father who the things belonged to and he said they belonged to him. The soldiers asked him who gave them to him, and he said his master gave them to him. The Yankees told him that they thought he was lying, and if he didn't tell the truth they would kill him, but he wouldn't say anything else so they left him alone and went away.

"Work used to start on the plantation at four o'clock in the morning, when the people went in the garden. At eight or nine o'clock they went into the big fields. Everybody was given a task of work. When you finished your task you could quit. If you didn't do your work right you got a whipping.

"The babies were taken to the Negro house and the old women and young colored girls who were big enough to lift them took care of them. At one o'clock the babies were taken to the field to be nursed, then they were brought back to the Negro house until the mothers finished their work, then they would come for them.

"Dr. Rose gave me to his son, Dr. Arthur Barnwell Rose, for a Christmas present. After the war Dr. Rose went back to England. He said he couldn't stay in a country with so many free Negroes. Then his son Dr. Arthur Barnwell Rose had the plantation. Those was good white people, good white people.

"The colored people were given their rations once a week, on Monday, they got corn, and a quart of molasses, and three pounds of bacon, and sometimes meat and peas. They had all the vegetables they wanted; they grew them in the gardens. When the boats first came in from Africa with the slaves, a big pot of peas was cooked and the people ate it with their hands right from the pot. The slaves on the plantation went to meeting two nights a week and on Sunday they went to Church, where they had a white preacher Dr. Rose hired to preach to them.

"After the war when we came back to Charleston I went to work as a chimney-sweep. I was seven years old then. They paid me ten cents a story. If a house had two stories I got twenty cents; if it had three stories I got thirty cents. When I got too big to go up the chimneys I went back to Rose plantation. My father was still overseer or driver. I drove a cart and plowed. Afterwards I worked in the phosphate mines, then came back here to take care of the garden and be caretaker. I planted all these Cherokee roses you see round here, and I had a big lawn of Charleston grass. I aint able to keep it like I used to."

Henry is intensely religious. He says "the people don't notice God now because they're free." "Some people say there aint no hell," he continued, "but I think there must be some kind of place like that, because you got to go some place when you leave this earth, and you got to go to the master that you served when you were here. If you serve God and obey His commandments then you go to Him, but if you don't pay any attention to what he tells you in His Book, just do as you choose and serve the devil, then you got to go to him. And it don't make any difference if you're poor or rich, it don't matter what the milliner (millionaire) man says."

He seemed so proud of his garden, with its broad view across the Ashley River, showing his black walnut, pear and persimmon trees, grape vines and roses, that the writer said, "Henry, you know a poet has said that

we are nearer God in the garden than anywhere else on earth." "Well ma'am, you see," he replied, with a winning smile, "that's where God put us in the first place."

Project #1655
Augustus Ladson
Charleston, S. C.

EX-SLAVE BORN 1857
GRAND PARENTS CAME DIRECTLY FROM AFRICA

I was nickname' durin' the days of slavery. My name was Henry but they call' me Toby. My sister, Josephine, too was nickname' an' call' Jessee. Our mistress had a cousin by that name. My oldes' bredder was a Sergeant on the Charleston Police Force around 1868. I had two other sister', Louise an' Rebecca.

My firs' owner was Arthur Barnwell Rose. Then Colonel A. G. Rhodes bought the plantation who sol' it to Capen Frederick W. Wagener. James Sottile then got in possession who sol' it to the DeCostas, an' a few weeks ago Mrs. Albert Callitin Simms, who I'm tol' is a former member of Congress, bought it. Now I'm wonderin' if she is goin' to le' me stay. I hope so 'cus I'm ol' now en can't work.

My pa was name' Abraham Brown; he was bo'n on Coals Islan' in Beaufort County. Colonel Rhodes bought him for his driver, then he move here. I didn't know much 'bout him; he didn't live so long afta slavery 'cus he was ol.

Colonel Rhodes had a son an' a daughter. The son went back to England afta his death an' the daughter went to Germany with her husban'. They ain't never come back so the place was sol' for tax.

Durin' the war we was carry to Deer Pond, twelve miles on dis side of Columbia. W'en the war was end' pa brought my sister, Louise, Rebecca, who was too small to work, Josephine an' me, home. All my people is long-lifted. My grand pa an' grand ma on pa side come right from Africa. They was stolen an' brought here. They use to tell us of how white men had pretty cloth on boats which they was to exchange for some of their o'nement'. W'en they take the o'nement' to the boat they was carry way down to the bottom an' was lock' in. They was anchored on or near Sullivan's Islan' w'ere they been feed like dogs. A big pot was use' for cookin'. In that pot peas was cook' an' lef' to cool. Everybody went to the pot with the han's an' all eat frum the pot.

I was bo'n two years before the war an' was seven w'en it end. That was in 1857. I never went to school but five months in my life, but could

learn easy. Very seldom I had to be tol' to do the same thing twice.

The slaves had a plenty o' vegetables all the time. Master planted t'ree acres jus' for the slaves which was attended to in the mornin's before tas' time. All provision was made as to the distribution on Monday evenin's afta tas'.

My master had two place: one on Big Islan' an' on Coals Islan' in Beaufort County. He didn't have any overseer. My pa was his driver.

Pa say this place was given to Mr. Rhodes with a thousand acres of lan' by England. But it dwindled to thirty-five w'en the other was taken back by England.

There wasn't but ten slaves on this plantation. The driver call' the slaves at four so they could git their breakfas'. They always work the garden firs' an' at seven go in the co'n an' cotton fiel'. Some finish their tas' by twelve an' others work 'til seven but had the tas' to finish. No one was whip' 'less he needed it; no one else could whip master' slaves. He wouldn't stan' for it. We had it better then than now 'cause white men lynch an' burn now an' do other things they couldn't do then. They shoot you down like dogs now, an' nothin' said or done.

No slave was suppose' to be whip' in Charleston except at the Sugar House. There was a jail for whites, but if a slave ran away an' got there he could disown his master an' the state wouldn't le' him take you.

All collud people has to have a pass w'en they went travelin'; free as well as slaves. If one didn't the patrollers, who was hired by rich white men would give you a good whippin' an' sen' you back home. My pa didn't need any one to write his pass 'cause he could write as well as master. How he got his education, I didn't know.

Sat'day was a workin' day but the tas' was much shorter then other days. Men didn't have time to frolic 'cause they had to fin' food for the fambly; master never give 'nough to las' the whole week. A peck o' co'n, t'ree pound o' beacon, quart o' molasses, a quart o' salt, an' a pack o' tobacco was given the men. The wife got the same thing but chillun accordin' to age. Only one holiday slaves had an' that was Christmas.

Co'nshuckin' parties was conducted by a group of fa'mers who take their slaves or sen' them to the neighborin' ones 'til all the co'n was shuck'. Each one would furnish food 'nough for all slaves at his party. Some use to have nothin' but bake potatas an' some kind of vegetable.

An unmarried young man was call' a half-han'. W'en he want to marry he jus' went to master an' say there's a gal he would like to have for wife. Master would say yes an' that night more chicken would be fry an' everything eatable would be prepare at master' expense. The couple went home afta the supper, without any readin' of matrimony, man an' wife.

A man once married his ma en' didn't know it. He was sell from her w'en 'bout eight years old. When he grow to a young men, slavery then was over, he met this woman who he like' an' so they were married. They was married a month w'en one night they started to tell of their experiences an' how many times they was sol'. The husban' tol' how he was sol' from his mother who liked him dearly. He tol' how his ma faint' w'en they took him away an' how his master then use to bran' his baby slaves at a year ol'. W'en he showed her the bran' she faint' 'cause she then realize' that she had married her son.

Slaves didn't have to use their own remedy for sickness for good doctors been hired to look at them. There was, as is, though, some weed use for fever an' headache as: blacksnake root, furrywork, jimpsin weed, one that tie' on the head which bring sweat from you like hail, an' hickory leaf. If the hickory is keep on the head too long it will blister it.

W'en the war was fightin' the white men burn the bridge at the foot of Spring Street so the Yankees couldn't git over but they buil' pontoos while some make the horses swim 'cross. One night while at Deer Pond, I hear something like thunder until 'bout eleven the next day. W'en the thing I t'ought was thunder stop', master tell us that evenin' we was free. I wasn't surprise to know for as little as I was I know the Yankees was goin' to free us with the help of God.

I was married twice, an' had two gals an' a boy with firs' wife. I have t'ree boys with the second; the younges' is jus' eight.

Lincoln did jus' what God inten' him to do, but I think nothin' 'bout Calhoun on 'account of what he say in one of his speech 'bout collud people. He said: "keep the niggers down."

To see collud boys goin' 'round now with paper an' pencil in their han's don't look real to me. Durin' slavery he would be whip' 'til not a skin was lef' on his body.

My pa was a preacher why I become a Christian so early; he preach' on the plantation to the slaves. On Sunday the slaves went to the white church. He use to tell us of hell an' how hot it is. I was so 'fraid of hell 'til I was always tryin' to do the right thing so I couldn't go to that terrible place.

I don't care 'bout this worl' an' its vanities 'cause the Great Day is comin' w'en I shall lay down an' my stammerin' tongue goin' to lie silent in my head. I want a house not made with han's but eternal in the Heavens. That Man up there, is all I need; I'm goin' to still trus' Him. Before the comin' of Chris' men was kill' for His name sake; today they curse Him. It's nearly time for the world to come to en' for He said "bout two thousand years I shall come again" an' that time is fas' approachin'.

Source

Interview with Henry Brown, 637 Grove Street. He is much concerned with the Scottsboro Case and discusses the invasion of Italy into defenseless Ethiopia intelligently.

THE STORM BREAKS

The Project Gutenberg EBook of *The Great Steel Strike and its Lessons*, by William Z. Foster

THE STEEL TRUST ARMY--CORRUPT OFFICIALDOM--CLAIRTON--McKEESPORT
--THE STRIKE--SHOWING BY DISTRICTS--A TREASONABLE ACT--GARY
GETS HIS ANSWER

As the memorable twenty-second of September approached a lurid and dramatic setting developed for the beginning of the great steel strike. Everywhere the steel companies made gigantic preparations to crush their aspiring workers back to slavery. The newspapers shrieked revolution. The whole country was a-tremble with anxiety and apprehension.

Pittsburgh was the storm center. There, in its stronghold, the Steel Trust went ahead with strike-breaking measures unprecedented in industrial history. It provisioned and fortified its great mills and furnaces, surrounding them with stockades topped off with heavily charged electric wires, and bristling with machine guns. It assembled whole armies of gunmen. Brute force was to be used in breaking the solidarity of the workers. Said the New York *_World_* editorially September 22: "In anticipation of the steel strike, what do we see? In the Pittsburgh district thousands of deputy sheriffs have been recruited at several of the larger plants. The Pennsylvania State Constabulary has been concentrated at commanding points. At other places the authorities have organized bodies of war veterans as special officers. At McKeesport alone 3,000 citizens have been sworn in as special police deputies subject to instant call. It is as though preparations were made for actual war."

Along the Monongahela river from Pittsburgh to Clairton, a distance of twenty miles, there were not less than 25,000 armed men in the service of the Steel Trust. In the entire Pittsburgh district, practically all the petty parasites who prey upon the steel workers--the professional and small business men--had been sworn in as deputies and furnished firearms to defend their great overlord, to whom they all do unquestioning service no matter how dirty the job. During the strike Sheriff Haddock of Allegheny county stated to the Senate Committee investigating the strike that there were 5,000 deputy sheriffs and 5,000 strikers in his jurisdiction, or one deputy for each striker. His totals

should have been multiplied by at least ten in each case; 50,000 deputies and 50,000 strikers would have been well below the mark. It is noteworthy that although the danger of an uprising in the Pittsburgh district was widely advertised no appeal was made for troops, nor was there even any talk of an appeal. The reason was that the Steel Trust had a vast army of its own, officered by its own officials, and it needed no outside help.

Western Pennsylvania is controlled body and soul by the Steel Trust. The whole district has the psychology of a company-owned town. All authority centers in the steel industry. From there practically every institution takes its orders. Local governmental agencies are hardly more than public service departments of the Steel Trust. Their officials, city, county, state and federal, obey the mandates of the steel magnates just about as readily and naturally as do the superintendents and mill bosses. No less than the latter they felt it to be their duty to break the strike by whatever means their masters told them to use.

With the approach of the strike these lackey officials hastened _en masse_ to the aid of the Steel Trust. Sheriff Haddock, besides swearing in an army of guards and turning them over to the steel companies to carry out their plan of terrorism, issued a flaming proclamation practically setting up martial law and making it a riotous assembly for three steel workers to meet together. Next day, September 21, the organizers tried to hold a meeting in North Clairton--with the Burgess' permission, and at a place on the public commons especially set aside by the authorities for union meetings. About 3,000 steel workers gathered to hear the speakers. Everything was going as peacefully as a Sunday school picnic, when suddenly a troop of State Constabulary appeared upon the scene, and without a word of warning, rode full tilt into the crowd, clubbing and trampling men and women indiscriminately. They tore down and threw in the mud the American flag floating above the speakers' stand. Scores were arrested (including organizers J. B. Etchison and P. H. Brogan) and held for heavy bonds on charges of rioting.[12] Many were seriously injured, but fearing to report their cases to the doctors and thus court arrest, as the latter were nearly all deputies, they cured themselves as best they could. This crying outrage was perpetrated under the authority of the Sheriff's proclamation. It was endorsed and lauded by Governor Sproul, than whom the Steel Trust has no more willing champion.

At the same hour as the Clairton outrage a similar attack was made on the workers at Glassport, adjoining McKeesport. Not being allowed to meet at the latter city the organizers had leased a plot of ground in Glassport and had been holding regular meetings there, with the full sanction of the local authorities. For the meeting in question they had an official permit. But just as it was about to begin the State Constabulary broke it up in true Cossack fashion, almost riding down the Burgess in so doing. They arrested all they could seize. These were held as rioters under bail of from \$1,000 to \$3,000 each. The venal Pittsburgh papers screamed about the outbreaks that had been crushed by

the gallant State police, and praised them for their bravery in facing the "rioting mobs."

Despite all these terroristic methods the Steel Trust could not break the will of its workers. On September 22 they struck throughout the entire industry with a discipline and universality that will be remembered so long as steel is made in America. On Tuesday, the twenty-third, 304,000 had quit their posts in the mills and furnaces. All week their ranks were augmented until by September 30, there were 365,600 on strike. It was a magnificent effort for freedom, and twice as big a strike as this country had ever known. By cities and districts, the numbers of strikers were as follows:

Pittsburgh	25,000
Homestead	9,000
Braddock	10,000
Rankin	5,000
Clairton	4,000
Duquesne & McKeesport	12,000
Vandergrift	4,000
Brackenridge	5,000
New Kensington	1,100
Apollo	1,500
Leechburg	3,000
Donora & Monessen	12,000
Johnstown	18,000
Coatesville	4,000
Youngstown district, including Youngstown, E. Youngstown, Struthers, Hubbard, Niles, Canton, Alliance, Massillon, Warren, Farrell, Newcastle, Sharon, Butler, etc.	70,000
Wheeling district	15,000
Cleveland	25,000
Steubenville district	12,000
Chicago district, including Gary, Joliet, DeKalb, South Chicago, Indiana Harbor, East Chicago, Hammond, Evanston, Sterling, Peoria, Milwaukee, etc.	90,000
Buffalo district	12,000
Pueblo	6,000
Birmingham	2,000
5 Bethlehem Plants	20,000

Total	365,600

The shut-down was almost complete. Throughout the country the industry was stricken with paralysis. On an average the strike was at least 90 per cent. effective. In the great Chicago district practically all the men struck, hamstringing the big plants in the various steel towns of

that section, Gary, Joliet, Indiana Harbor, South Chicago, etc. The holding of the organizations in this district for a year, in the face of Steel Trust opposition, by the organizers under Secretary Evans, and later, De Young, was one of the most notable achievements of the whole campaign. When the pent-up force was finally released it swept the district like a flood, leaving hardly a wheel turning anywhere.

Youngstown is another place where great difficulties had been encountered in the organizing work, the workers being deeply discouraged by recently lost local strikes, and the authorities at some points so hostile that it was impossible to hold meetings in the strategic places. But so widespread was the discontent at the miserable working conditions, and so well had the district crew of organizers under Secretaries McCadden and Hammersmark done their work that when the strike clarion sounded, the masses of steel workers responded almost to a man. Trust plants and "independents" alike had to shut down. The steel working population of the entire Mahoning Valley went on holiday. It was a clean walkout. In the outer Youngstown district, as established by the National Committee system, the companies, by the use of desperate tactics, succeeded in keeping some of their men at work; in Sharon, Farrell and Newcastle probably twenty per cent refused to obey the strike call. But in Canton and Massillon, John Olchon and the other organizers brought all the important mills to a dead stop.

Without exception, the enormous Cleveland mills and furnaces shut down tight. In Johnstown the Cambria Company was so hard hit that, swallowing its pride, it had to ask the hated unions for a detachment of workers to protect its plants. The Buffalo district men struck almost 100 per cent., after a bitter organizing campaign and an eight months' free speech fight. The Wheeling and Steubenville districts' steel mills and blast furnaces were abandoned altogether by their crews. In Coatesville and Birmingham, the response was poor, in the first locality because of insufficient organization; and in the second because of discouragement due to a lost local strike the year before. But in far away Colorado, the steel workers, hearkening to the voice of freedom abroad in the land, expressed their contempt for the company-union slavery of John D. Rockefeller, Jr., by tying up every department in his big Pueblo mills.

In the immediate Pittsburgh district, though here more strenuously opposed by the Steel Trust, the strike ranged from 75 to 85 per cent. effective. That it did not go as strong as other districts was purely because of the denial, by the companies and the authorities, of the workers' rights to meet and to organize. In the "Black Valley" section of the district, comprising the towns lying along the Allegheny river, Apollo, Vandergrift, Leechburg, Brackenridge, Natrona and New Kensington, and notorious as the scene of the brutal murder of organizer Mrs. Fannie Sellins, the strike went 90 per cent. or better; but in the Monongahela river section it was not so good. Of the steel towns in that district, Donora and Monessen took the lead with a 100 per cent. strike. Due to the terrorism prevailing exact figures were almost impossible to

get for the other towns, but according to the best information procurable they averaged about as follows; Clairton 95, Braddock 90, Homestead 80, Rankin 85, McKeesport 70, and Duquesne 50 per cent. In Pittsburgh itself all the larger mills and furnaces, except those of the Jones and Laughlin Company, either suspended operations altogether or lost heavily of their employees during the first two days of the strike. The Jones and Laughlin men had been profoundly discouraged by a lost strike two years previously, and had responded poorly to the organizers' efforts. But when they saw the magnitude of the strike they took heart somewhat, and by strenuous efforts in a rapid fire campaign, the organizers had at least 60 per cent. of them on strike by the end of the first week.

In the plants of the Bethlehem Steel Company the strike did not become effective until September 29. The cause was to be found in local conditions. In the early spring of 1918, before the National Committee began its campaign, ruthless exploitation by the company had resulted in a strike of machine shop employees. The National War Labor Board settled the strike, erecting a shop organization to handle grievances. In the meantime the National Committee came into the field and began active operations. Up till this time the organized movement, led by David Williams and Patrick Duffy, had been confined principally to the Machinists, Electrical workers and a few other skilled trades; but now it spread to the main body of the employees. To head it off the company proposed to the National Committee that a Rockefeller union be set up in the plants. Naturally this was unacceptable. Then they offered to sign an agreement covering all their shipyard employees if the organization of their steel plants was given up, feeling no doubt that the shipyard boom was only temporary. For the National Committee, John Fitzpatrick spurned this shameful trade, and the organization campaign went on--with the shipyard men getting their agreement later on just the same.

Technically the employees of the Bethlehem Company should have struck under the first strike call, as they had no union agreement; but being tied up with futile negotiations under their "collective bargaining" arrangement, they did not get out until the twenty-ninth. When they did strike the response was not so good. A fair average for the plants in South Bethlehem, Steelton, Reading, Lebanon and Sparrows' Point would be a 50 per cent. strike.

On the whole the strike affected practically the entire industry, seventy important steel centres being involved. About the only mills of consequence to escape it were those located at Midland, Woodlawn, Lorain and Duluth. And the only reason for this was lack of sufficient organizers to cover them. It is noteworthy that the strike followed strictly the lines of organization. In hardly a single instance did the unorganized go out spontaneously, even though they had previously been clamoring for the unions to help them. This tends to show how completely the steel companies dominated their unorganized workers and how hard it was for the latter to act in concert.

For the most part the great walkout was concentrated on the smelting and rolling branches of the steel industry. It had been the original intention to make the movement thoroughly industrial, taking in all the workers from those who mine the coal and iron to those who transfer the finished products to the railroad lines. But insufficient resources compelled the modification of this program, and forced the unions to confine their work principally to the blast furnaces and rolling mills. However, where the company mines or fabricating works lay close to the general plants, or were part of them, the essentially industrial character of the campaign manifested itself and these departments were organized along with the rest. In various places, including Gary, Chicago, Homestead, etc., bridge, car, and other fabricating shops were an integral part of the drive. The iron miners working close in to Birmingham responded to some extent, but a big defeat of the local metal trades in the mills a couple of years previously held them back from making a strong demonstration. The coal miners struck in several places. In Johnstown, 2,000 of them working in the Cambria Steel Company's mines organized during the campaign, became affiliated with the local mill workers' council, and walked out 100 per cent. on the historic twenty-second of September.

Although the United States Steel Corporation was recognized as the arch enemy of the unions, the strike was not directed against it alone. Every iron and steel mill and furnace in the country not working under union agreements was included. This meant at least 95 per cent. of the industry, because the only agreements of any consequence were between some of the smaller companies and the Amalgamated Association. A number of these concerns were affected also, their agreements relating only to skilled workers, and the plants having to close when the laborers struck. This occurred quite extensively in the Cleveland, Youngstown and Pittsburgh districts.

Considering the large number of them involved and their traditions of isolated action, the unions displayed reasonably good solidarity in going "over the top" against the Steel Trust. The battle line was far from perfect, however. Much harm was done the morale of the strikers by local unions here and there that were under the sway of ignorant blockheads or designing tools of the bosses, refusing to recognize the National Committee's strike call and insisting upon getting instructions from their own headquarters, meanwhile scabbing it in the mills. And the worst of it was that sometimes it was difficult, or even impossible to have the necessary instructions issued.

Far more serious than this, however, was the action of the executive officers of the International Union of Steam and Operating Engineers. Just as the strike was about to begin President Snellings and Secretary Comerford sharply condemned it by letter and through the press, urging their men to stay at work upon the flimsy pretext that the President's industrial conference would attend to their interests. Roused to indignation by this cold-blooded course, the local unions of engineers, almost without exception, repudiated their international misleaders and

stuck with the rest of the steel workers. After President Gompers had been quoted in the newspapers as pledging the support of the A. F. of L. to the strike (two days after it started) and Labor generally had shown its determination to stick by the steel workers, the officers of the Engineers' international were compelled to publicly endorse the strike. But throughout its duration they nevertheless privately encouraged their strategically situated tradesmen to return to work, thus doing incalculable harm when the strikers had begun to weaken a little. This plain case of official scabbery was inspired by a jurisdictional dispute between the engineers and the electrical workers over the disposition to be made of electrical crane-men signed up in the campaign. Because they could not have their unreasonable way in the matter, the officials of the engineers deliberately knifed the strike and lent aid and comfort to the bitterest opponents of Organized Labor on this planet. To such extremes will union men go in internecine wars over trade demarcations.

But in spite of opposition, blundering and treachery, the steel workers had spoken. Mr. Gary was answered. Previous to the strike, he declared that the unions represented only an insignificant minority of his men, the great bulk of his working force being satisfied. He compelled the Committee to show its credentials. Result: 365,600 steel workers laid down their tools. This estimated total has never been disputed by the steel companies. Here and there, in some individual town or district, they pointed out a figure occasionally as being excessive; but although importuned by newspaper men to do so, they never ventured to issue a statement of the number on strike at all points. The reason was that they feared to print the grand total which even their lying press bureau would have to admit. Word came to the Committee from reliable sources that the steel manufacturers considered the union figure well within the real total.

While not accurately ascertainable, the number of Mr. Gary's employees actually taking part in the strike may be closely approximated. Mr. Gary stated to the Senate Committee that the total number employed by the United States Steel Corporation in the departments affected by the strike was 201,065. Against this number should be checked off about half of the total number of strikers, or 182,500. This is based upon the theory that the official U. S. Steel Corporation plants form approximately 50 per cent. of the industry, and that the strike was just as effective against them as against those of any other company. It is not asserted that these figures are absolutely accurate; but they will serve to indicate that the claim of a 90 per cent. strike in the plants of the Steel Corporation is a fair one. It is exceedingly doubtful if as many as 10 per cent. of Mr. Gary's employees remained at their posts and failed to heed the strike call. Fully 125,000 of them were members of the unions before the strike started, and most of the rest would have been also, had they dared brave the anger of their bosses.

The great steel strike thoroughly exposed the hypocrisies of Mr. Gary and his ilk that in some mysterious way labor policies and conditions in

the steel industry depend upon the wishes of the body of the workers. It made plain that in the autocratic system now prevailing the democratic principles of majority and minority do not enter. It is a case pure and simple of the absolute sway of property rights over human rights. A handful of social parasites hidden away in Wall street, with no other interest in the steel industry than to exploit it, settle arbitrarily the vital questions of wages, hours and working conditions, while the enormous mass of the workers, actual producers whose very lives are involved, have no say whatsoever. No matter how bitter their grievances, when they raise their voice to ask redress, they are discharged, blacklisted, starved, beaten, jailed and even shot, until they bend the knee again and yield to the will of their industrial masters.

FOOTNOTES:

[12] In this connection occurred one of the finest incidents in the strike: Wm. J. Brennan, an able, conscientious attorney of Pittsburgh, and one of the counsel who defended the Homestead strikers in 1892, went to Clairton to get the "rioters" released on bonds. But such a state of terror existed that no one dared to go their bail. Thereupon, Mr. Brennan himself, without knowing a single one of the defendants, but smarting under the injustice of it all, pledged his entire property holdings, amounting to \$88,000, to get them set free.

THE STEAM LOCOMOTIVE

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1910

Modern railroads are the outcome of the invention of the locomotive; yet the invention of the practical locomotive was the outcome of iron railroads which had been in existence for half a century. These iron railroads were a development from wooden predecessors, which were the direct descendants of the smooth roadways of the Greeks and Romans. Indeed it is quite reasonable to suppose that the ancients may have been familiar with the use of parallel rails with grooved or flanged wheels to fit them; but if so there seems to be no definite record of the fact, and our knowledge of true railroads goes back only to the seventeenth century.

As early as 1630, it is recorded that a road built of parallel rails of wood upon which cars were run was used in a coal-mine near Newcastle, England; and there is no reason to suppose that this road was a novelty at the time. Half a century later there was a railroad in operation near the river Tyne which has been described by Roger North as being made of "rails of timber placed end to end and exactly straight, and in

two parallel lines to each other. On these rails bulky cars were made to run on four rollers fitting the rails, whereby the carriage was made so easy that one horse would draw four or five chaldrons of coal to a load."

At this time the use of iron rails had not been thought of, or at least had not been tried, probably from the fact that iron was then very expensive. Even the wooden rails in use, and the wheels that ran upon them, were of no fixed pattern. Some of these rails were in the form of depressed grooves into which an ordinary wheel fitted. But these were very unsatisfactory because they became filled so easily with dirt and other obstructions, and a more common type was a rail raised a few inches above the ground like a molding, a grooved wheel running on the surface.

Such rails were short lived, splitting and wearing away quickly, and being easily injured by other vehicles. But they were, on the whole, more satisfactory than the depressed rails, and were the type adopted when iron rails first came into use, about 1767. Ten years later the idea of the single flange was conceived, not placed on the wheels of the cars as at present, but cast on the rails themselves. These flanges were first made on the outside of the rails, and later placed on the inside, the wheels of the cars used on such rails being of the ordinary pattern with flat tires.

But, in 1789, William Jessop, of Leicestershire, began building cars with wheels having single flanges on the inside like modern car wheels, to run upon an elevated molding-shaped iron rail; and the many points of superiority of this type of wheel soon led to its general adoption. So that aside from some minor changes, the type of rails and wheels in use at the close of the eighteenth century was practically the same as at present.

It is probable that if the first inventors had attempted to make locomotives to run upon the railroads then in existence they would have been successful many years before they were, but the advantages of railroads was not as evident then as now, and the inventors' efforts were confined to attempts to produce locomotive wagons--automobiles--to operate upon any road where horses and carts could be used.

Some of their creations were of the most fanciful and impractical design, although quite a number of them were "locomotives" in the sense that they could be propelled over the ground by their own energy, but only at a snail's pace, and by the expenditure of a great amount of power. Several inventors tried combining the principle of the steamboat and the locomotive in the same vehicle, and in 1803 a Philadelphian by the name of Evans made a steam dredge and land-wagon combined which was fairly successful in both capacities of boat and wagon. He called his machine the "Oruktor Amphibious," and upon one occasion made a trip through the streets of Philadelphia, and then plunged into the Schuylkill River and continued his journey on the water. But as he was

unable to arouse anything but curiosity, the financiers refusing to take his machine seriously, he finally gave up his attempts to solve the problem of steam locomotion.

The year before this, in 1802, Richard Trevithick, in England, had been more successful in his attempts at producing a locomotive. He produced a steam locomotive that operated on the streets of London and the public highways, hauling a wagonload of people. But the unevenness of the roads proved disastrous to his engine, and as it could make no better time than a slow horse, it was soon abandoned. But Trevithick had learned from this failure that a good roadbed was quite as essential to the success of a locomotive as the machine itself, and two years later he produced what is usually regarded as the first railway locomotive. This was built for the Merthyr-Tydvil Railway in South Wales, and on several occasions hauled loads of ten tons of iron at a fair rate of speed. It was not considered a success financially, however, and was finally abandoned.

At this time a curious belief had become current among the inventors to the effect that if a smooth-surface rail and a smooth-surface wheel were used, there would not be sufficient friction between the two to make it possible to haul loads, or more than barely move the locomotive itself. Learned mathematicians proved conclusively on paper by endless hair-splitting calculations that the thing was impossible,--that any locomotive strong enough to propel itself along a smooth iron rail would be heavy enough to break the strongest rail, and smash the roadbed. In the face of these arguments the idea of smooth rails and smooth wheels was abandoned for the time. Trevithick himself was convinced, and turned his attention to the perfecting of an engine with toothed drive-wheels running on a track with rack-rails. But this engine soon jolted itself and its track into the junk-heap without doing anything to solve the problem of locomotion.

Shortly after this, a man named Chapman, of Newcastle, built a road and stretched a chain from one end to the other, this chain being arranged to pass around a barrel-wheel on the locomotive, which thus pulled itself along, just as some of the boats on the Rhine do at the present time. But the machinery for operating this engine was clumsy and unsatisfactory, and the road proved a complete failure.

Perhaps the most remarkable locomotive ever conceived and constructed was one built by Brunton, of Derbyshire, in 1813. This machine was designed to go upon legs like a horse, and was a combination of steam wagon and mechanical horse. The wagon part of the combination ran upon a track like an ordinary car, while the mechanical legs were designed to trot behind and "kick the wagon along." "The legs or propellers, imitated the legs of a man or the fore-legs of a horse, with joints, and when worked by the machine alternately lifted and pressed against the ground or road, propelling the engine forward, as a man shoves a boat ahead by pressing with a pole against the bottom of a river." This machine was able to travel at a rate somewhat slower than that at which

a man usually walks; and its tractive force was that of four horses. But after it had demonstrated its impotency by crawling along for a few miles, it terminated its career by "blowing up in disgust," killing and injuring several by-standers.

The much disputed point as to whether a smooth-wheeled locomotive would be practical on smooth rails was not settled until 1813. An inventor named Blackett, of Wylam, who with his engineer, William Hedley, had built several steam locomotives which only managed to crawl along the tracks under the most favorable conditions, wishing to determine if it were the fault of locomotives or the system on which they worked that accounted for his failures, constructed a car which was propelled by six men working levers geared to the wheels, like the modern hand-car.

In this way he determined that there was sufficient adhesion between smooth rails and smooth wheels for locomotives to haul heavy loads behind them, even on grades of considerable incline. The experiments of Blackett settled this question beyond the possibility of controversy, and removed a very important obstacle from the path of future inventors. Among these inventors was young George Stephenson, who was rapidly making a reputation for himself as a practical engineer.

[Illustration: GEORGE STEPHENSON]

STEPHENSON SOLVES THE PROBLEM

Stephenson was born on June 9, 1781, in the small colliery village of Wylam, on the river Tyne. His parents were extremely poor, and as the boy was sent to work as soon as he was large enough to find employment of any kind, he was given no education, even to the extent of learning the alphabet. It was only after he had spent many years in the colliery, and had finally worked himself up from the position of "picker" at three pence a day to that of fireman, that he was able to spend the necessary time and pennies to acquire something of an education. Then he attended a night school, learned his alphabet, was able to scrawl his name at eighteen years of age, and a little later could read, write, and do sums in arithmetic.

But if deficient in letters, there was one field in which he had no superior,--that was in the practical handling of a steam-engine. His position in the mine gave him a chance to study the workings of the engines then in use, and at every opportunity, on holidays and after working-hours, he was in the habit of dismantling his engine, and carefully studying every detail of its construction. Thus by the time he had reached his majority he was a skillful engineer, besides having many new ideas that had developed during his examinations of the machinery. But besides his knowledge of engineering, he was an accomplished workman in other fields. He was a good shoemaker, watch-and clock-repairer, and tailors' cutter, at all of which trades he worked at odd times to increase his income. Thus he was a veritable

jack-of-all-trades; with the unusual qualification, that he was master of one.

By the time he was twenty-six years old he was holding the position of engineer to a coal-mining company, and had acquired the confidence of his employers to such an extent that he was permitted to build a locomotive for them--a thing that had been his ambition for several years. This was in 1807, the same year that Robert Fulton demonstrated the possibilities of steam navigation.

In the construction of this engine Stephenson introduced several novel features of his own inventing, although on the whole no new principles were involved; and in practice this engine showed several points of superiority over its predecessors. It would draw eight loaded wagons of thirty tons' weight at the rate of four miles an hour on an ascending grade of one in four hundred and fifty feet. But it had two very radical defects--it would not keep up steam and the noise of the steam-pipe exhausting into the open air frightened the horses of the neighborhood to such a degree that the authorities ordered the inventor either to stop running his engine, or suppress its noise. As an experiment, therefore, Stephenson arranged the exhaust pipes so that they opened into the smokestack, where the sound would be muffled. But when the engine was now tried he found to his surprise that this single expedient had solved both difficulties, the exhausting steam causing such an improvement in the draught of his furnace that double the quantity of steam was generated. This discovery helped to simplify later experiments, for the difficulty of keeping up steam had been one of the great obstacles encountered by the inventors.

Stephenson's second locomotive was an improvement over his first in many ways, but it was still far from being the practical machine that was to supplant horse-power. It could haul heavier loads than teams of horses, and was more convenient for certain purposes; but it was no more economical.

As yet the only use to which locomotives had been put was that of hauling cars in coal-mines. Indeed, the only railroads then constructed were those used in mines, the idea of utilizing such roads for passenger and freight traffic not having occurred to anyone until about 1820. Then the Englishman, Thomas Gray, suggested the construction of such a road between Liverpool and Manchester, advocating steam as the motive power. His idea was looked upon as visionary, and as he persisted in his efforts to interest prominent people in the scheme, he came to be very generally regarded as an enthusiastic but somewhat crackbrained fanatic.

But meanwhile the coal railroads were being extended to such lengths that they were assuming the proportions of modern railroads. The motive power on most of the roads was horses, although here and there a traction engine using chain or cable, was employed for certain purposes. In 1825, however, Stephenson began the construction of an

improved locomotive, this time at his own modest establishment; and a little later this engine made the trial that really demonstrated the possibilities of steam locomotion, although this was not universally recognized until the success of the Rocket a few years later.

A great deal of excitement and speculation arose throughout the country when the trial day approached. Great crowds assembled from every direction to witness the trial; some, more sanguine, came to witness the success, but far the greater portion came to see the bubble burst. The proceedings began at Busselton incline, where the stationary engine drew a train up the incline on one side and let it down on the other. The wagons were then loaded.

"At the foot of this plane a locomotive, driven by Mr. Stephenson himself, was attached to the train. It consisted of six wagons loaded with coal and flour, next a passenger coach (the first ever run upon a railroad) filled with the directors and their friends, then twenty wagons fitted up with temporary seats for passengers, and lastly came six wagons loaded with coal, making in all twenty-eight vehicles. The word being given that all was ready, the engine began to move, gradually at first, but afterward, in part of the road, attaining a speed of twelve miles an hour. At that time the number of passengers amounted to four hundred and fifty, which would, with the remainder of the load, amount to upwards of ninety tons. The train arrived at Darlington, eight and three-quarter miles, in sixty-five minutes. Here it was stopped and a fresh supply of water obtained, the six coal-cars for Darlington detached, and the word given to go ahead. The engine started, and arrived at Stockton, twelve miles, in three hours and seven minutes including stoppages. By the time the train reached Stockton the number of passengers amounted to over six hundred."

From this description it will be seen that the coal roads had been extended to form interurban railways. In this connection it is interesting to note the increase of traffic that developed on this particular road in the years immediately following the invention of the practical locomotive. When the road was projected it was estimated that its maximum carrying capacity would not exceed 10,000 tons of coal yearly. A few years later, when locomotives had come into use, the regular yearly carriage amounted to 500,000 tons.

[Illustration: A CENTURY'S PROGRESS IN LOCOMOTIVE BUILDING.

Fig. 1.--The Blenkinsop locomotive, built in 1812-13 to work on the rack Railway between Leeds and the Middleton colliery, a distance of 3.5 miles. This was the first commercially successful enterprise in which steam locomotives were employed. Fig. 2.--Model of locomotive engine No. 1 of the Stockton and Darlington Railway, England, built by Messrs R. Stevenson & Company in 1825. This engine ran successfully for 21 years. Fig. 3.--The locomotive "Royal George" which worked on the Stockton and Darlington Railway 1827-1842. It will be observed that each of these engines antedated Stevenson's famous "Rocket." Fig.

4.--Shows, by way of contrast with these earliest types of locomotive, the "Twentieth Century Limited" train of the New York Central Railroad, and a racing automobile, either of which can easily make better time than a mile a minute, as against the two or three miles per hour of their prototypes.]

The passenger coach on this first train, the first of its kind ever constructed for the special purpose of carrying passengers, was remarkable for its simplicity. One writer described it as "a modest and uncouth-looking affair, made more for strength than for beauty. A row of seats ran along each side of the interior, and a long table was fixed in the centre, the access being by the doorway behind, like an omnibus. This vehicle was named the _Experiment_, and was the only carriage for passengers upon the road for some time."

About this time the now famous Liverpool and Manchester Railway was projected. It was elaborately planned and carried out at an enormous expense. The construction of the road-bed was given special attention, although as yet the question of what motive power should be used had not been decided. Most of the directors and engineers favored the use of horses. The few that were in favor of steam did not favor the use of locomotives, but a system that would now be called a relay-cable system. According to this plan the road of about thirty miles was to be divided into nineteen sections, over each of which a stationary steam-engine was to work a chain or cable. But when the board of engineers appointed to investigate the possibilities of this system reported on the matter, it was found that there were several vital defects in such a system. For example, should any one of the sections of cable break or become inoperative, the entire line would have to stand idle; and furthermore, the cost of building and maintaining these nineteen stations offered serious financial obstacles.

It is an interesting fact that until the report of this board was made "not a single professional man of eminence could be found who preferred the locomotive over the fixed engine, George Stephenson only excepted." But with the glaring defects of the cable road, and the enormous cost of maintenance impressed upon the directors, the idea of the locomotive became at once more attractive, and the performance of Stephenson's locomotive was more carefully investigated. The upshot of these investigations was the offer of a prize of £500 for a locomotive that, on a certain day would perform certain duties named under the eight following headings:--

1. The engine must effectually consume its own smoke.
2. The engine, if of six tons' weight, must be able to draw, day by day, twenty tons' weight, including the tender, and water-tank, at ten miles an hour, with a pressure of steam upon the boiler not exceeding fifty pounds to the square inch.
3. The boiler must have two safety-valves, neither of which must be

fastened down, and one of them completely out of the control of the engineer.

4. The engine and boiler must be supported upon springs and rest on six wheels, the height of the whole not exceeding fifteen feet to the top of the chimney.

5. The engine with water must not weigh more than six tons, but an engine of less weight would be preferred although drawing a proportionately less load behind it; if of only four and one-half tons it might be put on four wheels.

6. A mercurial gauge must be affixed to the machine, showing the steam pressure about forty-five pounds to the square inch.

7. The engine must be delivered, complete and ready for trial, at the Liverpool end of the railway, not later than October 1, 1829.

8. The price of the engine must not exceed £550.

What strikes one as most peculiar in this set of requirements and specifications is the first clause--that of the engine consuming its own smoke; for even at the present time this is considered a difficult problem. But this was not so considered by the inventors of that time, their great stumbling-block being the high speed required. Ten miles an hour struck most of them as absurd and out of the question.

One eminent person, who was to become later one of England's leading engineers, stated publicly that "if it proved to be possible to make a locomotive go ten miles an hour, he would undertake to eat a stewed engine-wheel for his breakfast." It is not recorded whether or not this terrible threat was carried out.

But there was more than one engineer and engine-builder who took a more sanguine view of the prize offer. The firm of Braithwait & Ericsson signified its intention of competing, with a locomotive that they named the _Novelty_. Another firm entered the contest with an engine called the _Sans-pareil_; still another firm entered the _Perseverance_; and George Stephenson was on hand with the now-famous _Rocket_.

In the series of trials that followed, the _Sans-pareil_ and the _Perseverance_ were so clearly outclassed by the other two competing locomotives that they need not be considered here; but the _Novelty_ and the _Rocket_ were close competitors. The _Novelty_, indeed, made such a good showing, and afterwards proved to be such a good locomotive, that although it lost the contest, many competent judges have since regarded it as equal to the _Rocket_, if not superior, in principle. Be that as it may, later experiments proved conclusively that the cause of failure on the final day of the prize contest was due to defects in workmanship rather than to defective principle of construction.

The Novelty has been described as having the appearance of "a milk-can set in the rear end of a wagon, with a little smokestack in front looking like a high dashboard." It carried its supply of fuel and water in the "wagon-box" part of the engine frame, in front of the boiler, so that it required no tender. On its first trial, running without any load, it reached a speed of twenty-four miles an hour--a speed more than double the "stewed engine-wheel" limit. But at each subsequent trial, although it hauled loads for short distances, some part of its machinery became disabled, so that it was necessarily regarded as inferior to its more stable rival, the Rocket.

[Illustration]

[Illustration: CUGNOT'S TRACTION ENGINE AND THE "NOVELTY" LOCOMOTIVE.

These vehicles are shown together here because of their similarity of plan of construction. Cugnot's original engine (upper figure) was built in France in 1769. The vehicle shown above was made in 1770, after Cugnot's designs, for the French Government. It was intended for the transportation of artillery, and the specifications called for a carrying capacity of about 4½ tons and a speed of 2¼ miles per hour on level ground. Cugnot's original engine had attained this speed on a common road while carrying four persons; notwithstanding which fact the machine above shown was for some reason never given a trial. It is now preserved in the Conservatoire des Arts et Metiers, in Paris. It is particularly noteworthy that the successful road engine of Cugnot was constructed in 1769, the year in which James Watt took out the first patents on his steam engine. Just 60 years elapsed before Stephenson's "Rocket" convinced the world of the feasibility of transportation by steam-power.

The locomotive shown in the lower figure competed in the famous tests of 1829 against the "Rocket" and the "Sans Pareil." It excited much interest, attaining a speed of almost 32 miles per hour when running light, but owing to breakdowns was unable to fulfill the required tests and was therefore withdrawn from the competition. It was afterwards used commercially.]

The Sans-pareil was considerably over the maximum weight and according to a strict interpretation of the stipulations, should not have been allowed to contest; but although this question of over-weight was waived by the judges, and the engine given a fair trial, it showed such a capacity for consuming fuel without any corresponding ability to perform work, that it was decided inferior to the Novelty and the Rocket. The Perseverance was clearly outclassed by all the other competing engines, as its maximum speed was only five or six miles an hour.

The most consistent performer, and the final prize-winner, as everyone knows, was Stephenson's Rocket, the direct ancestor of all modern

locomotives. The boiler of this locomotive was horizontal, as in modern locomotives, cylindrical, and had flat ends. It was six feet in length and a little over three feet in diameter. The upper half of the boiler was used as a reservoir for steam, the lower half being filled with water and having copper pipes running through it. The fire-box, two feet wide and three feet high, was placed immediately behind the boiler. Just above this, and on each side, were the cylinders, two in number, acting obliquely downward on the two front wheels of the engine, the piston-rod connecting with the driver by a bar pinned to the outside of the wheel, as in modern American locomotives.

The engine with its load of water weighed a trifle over four tons--seemingly little more than a toy-locomotive, as compared with the modern monsters more than thirty times that weight. But for its size the little Rocket was a marvelous performer, even as judged by recent standards. On the first day of the contests over the two miles of trial tracks, it covered twelve miles in considerably less than an hour, shuttling back and forth over the road. The next day, as none of the other engines was in condition to exhibit, Stephenson offered to satisfy the curiosity of the great crowd that had gathered--a crowd that contained representatives from all over the world--by an unofficial trial of the Rocket. He coupled the little engine to a car, loaded on thirty-six passengers, and took them for a spin over the road at the rate of from twenty-six to thirty miles an hour.

The following day some of the competing locomotives were still unable to exhibit, and again the Rocket was given a semi-official trial. Hauling a car loaded with thirteen tons' weight, it ran back and forth over the two-mile road, covering thirty-five miles in one hour and forty-eight minutes including stoppages. The maximum velocity attained was about twenty-nine miles an hour. As this performance was duplicated on the day of the official trial, the Rocket was declared the winner, and awarded the prize.

[Illustration: THE FAMOUS LOCOMOTIVES "ROCKET" AND "SANS PAREIL."

Stevenson's celebrated "Rocket" is known to everyone as the winner of the competition for the prize of 500 pounds offered in 1829 by the Directors of the Liverpool and Manchester Railway. The "Sans Pareil," which, like the "Rocket," is still preserved at the South Kensington Museum in London, competed unsuccessfully for the prize. Though not equal to the "Rocket" it was in many respects a well-made locomotive. It was purchased by the Liverpool and Manchester Railway Company and saw many years of active service.]

Naturally there were many minor defects in the construction of this first locomotive, although most of them were too trivial and unimportant to affect the excellence of the machine as a whole. But it had one serious defect: the inclination of the cylinders caused the entire machine to rise and fall on its springs at every double stroke, producing great unsteadiness when running at any considerable speed.

This was corrected a few months later by the suggestion of Timothy Hackworth, who drew plans for a locomotive having horizontal cylinders to be used on the Stockton & Darlington Railway. His plans were submitted to Stephenson, who constructed an engine from them called the Globe, which differed from the Rocket in having the cylinders not only horizontal, but placed on the inside of the wheels. A little later Stephenson built the Planet on much the same lines as the Globe, and this engine became the model for engine builders the world over. It is an interesting fact that American engineers adopted, and still cling to, Stephenson's original plan of having the cylinders act on rods attached to the outside of the wheels as in the Rocket, while English engineers have always built their locomotives with the cylinders on the inside, as arranged on the Planet.

Since the time of the Planet the general shape and arrangement of most locomotives has remained unchanged. In America the inclemencies of the climate compelled the invention of the cab; and it was here also that the bell, whistle, pilot, and sand-box were first introduced. But by 1850 the present type of locomotive had been produced; and although constant modifications are being introduced, the general appearance of the locomotive remains the same, the difference being mostly in the bulk.

IMPROVEMENTS IN LOCOMOTIVES IN RECENT YEARS

During the closing years of the nineteenth century the general improvements in the rolling-stock of railroads, and the constantly increasing demand for faster passenger service, stimulated manufacturers to attempt numerous improvements as well as many changes in the size of the more recent types of locomotives. In a general way these changes may be summarized as follows: A great increase in the size and weight, with increased speed and tractive power; the use of larger boilers with thicker shells; the substitution of steel for cast-iron in certain parts of the locomotive, thereby greatly increasing the strength; and finally, the economizing of steam by compounding.

There is no way of determining the exact amount of increase in the weight of engines during the last decade, but the figures of some of the great manufacturing establishments will give a fair idea of this increase in a general way. In one of these establishments the average weight of a locomotive turned out ten years ago was 92,000 pounds for the engine alone, without the tender. At the present time the engines being manufactured by the same firm average 129,000 pounds, an increase of 37,000 pounds, or something over forty per cent. This average weight, however, gives but an inadequate conception of the size of the largest locomotives now being manufactured. The "hundred-ton" engine has become a commonplace. In 1909 a locomotive weighing, with its tenders, 300 tons was manufactured for passenger traffic on the Santa Fé lines.

In America there seems to be no limit to the sizes that may be reached; or at least up to the present time this limit has not been attained. In England and several of the Continental countries a great difficulty has been found to exist in the unlimited size of locomotives, in the fact that the bridges and tunnels of these railroads are, almost without exception, so low that any very great vertical increase in the size of the engine is out of the question without reconstructing many miles of bridges and tunnels at an enormous cost.

The increased demand for greater speed has also caused a marked increase in the amount of steam pressure per square inch in the boilers. In 1870 the average was about 130 pounds; by 1890 this had been increased to about 160 pounds; while at the present time steam is used frequently at a pressure of 225 pounds. Naturally this increase in pressure compels the use of heavier steel boiler plates. In 1890 the usual thickness of the steel sheets was one-half inch; but at the present time it is no unusual thing to use plates seven-eighths of an inch in thickness.

But probably the most important improvement in locomotive construction in recent years is the introduction of the compounding principle in the use of steam--a system whereby practically the entire energy of the steam is utilized, instead of a considerable portion of it being a dead loss, as in the older type of engine. As every one knows, the passage of the steam through a single cylinder of an engine does not exhaust its entire energy. In the compounding system this exhausted steam is made to pass through one or more cylinders after coming from the first, the energy of all these cylinders being utilized for the production of power.

The application of this principle of compounding is not new even in the field of locomotive construction. As early as 1846 patents for a compound locomotive were taken out in the United States, and such an engine built in 1867; but it is only since 1890 that compound locomotives have become popular in this country. In these compound locomotives the two cylinders are of unequal diameter, so proportioned "that the steam at high pressure in the smaller cylinder exerts upon the piston approximately the same force that is exerted by steam at a lower pressure in the larger cylinder. Steam is admitted first into the smaller cylinder, where it expends a portion of its initial energy, and then passes into the larger cylinder, where it performs an equal amount of work by exerting a diminished pressure upon a larger surface. This is the principle of compounding, the relative sizes and positions of the cylinders being varied according to the conditions to be met by the engine, or the ideas of the designer or builder, or of the purchaser. While in the marine and stationary engine the compound principle has been carried with success and economy to three and four stages of expansion in the use of steam, it has not been found practicable to go beyond two stages in compound locomotives."

In a pamphlet issued recently by one of the leading locomotive works of the country, some points of interest concerning the compound locomotive were stated concisely as follows:

"In stationary-engine practice the chief measure of the boiler efficiency is the economical consumption of coal. In most stationary engines the boilers are fired independently, and the draft is formed from causes entirely separate and beyond the control of the escape of steam from the cylinders. Hence any economy shown by the boilers must of necessity be separate and distinct from that which may be effected by the engine itself. In a locomotive, however, the amount of work depends entirely upon the weight on the driving wheels, the cylinder dimensions being proportioned to this weight, and, whether the locomotive is compound or single expansion, no larger boiler can be provided, after allowing for the wheels, frame and mechanism, than the total limit of weight permits. The heating surface and grate areas in both compound and single-expansion locomotives of the same class are practically the same, and the evaporative efficiency of both locomotives is chiefly determined by the action of the exhaust, which must be of sufficient intensity in both cases to generate the amount of steam necessary for utilizing to the best advantage the weight on the driving wheels. This is a feature that does not appear in any stationary engine, so that the compound locomotive cannot be judged by stationary standards, and the only true comparison to be made is between locomotives of similar construction and weight, equipped in one case with compound and in the other with single-expansion cylinders.

"No locomotive, compound or single-expansion, will haul more than its adhesion will allow. The weight on driving wheels is the limiting factor in the problem which confronts the locomotive engineer. Power can, of course, be increased by building a larger engine and augmenting this weight but in the present construction of tracks and bridges the limit of driving wheel load has almost been reached. Hence in modern locomotive practice the goal before the designer and engineer is to obtain maximum efficiency for the minimum weight admissible.

"It is not claimed for compound locomotives that a heavier train can be hauled at a given speed than with a single-expansion locomotive of similar weight and class; but the compound will, at very slow speed, on heavy grades, keep a train moving where a single-expansion will slip and stall. This is due to the pressure on the crank-pins of the compound being more uniform throughout the stroke than in the case of the single-expansion locomotive, and also to the fact that, when needed, live steam can be admitted to the low-pressure cylinders."

Of course, the principal reason for compounding the locomotive is to economize steam, and this is unquestionably accomplished; but nevertheless the comparative economy of compound and single-expansion locomotives was for some time a mooted question. Numerous tests have been made with these two classes of engines, and the widest ranges of differences were shown in many instances. In some cases the compounds

seem to show a saving of some forty per cent. in fuel; but this is by no means a determinative factor in the daily use of an engine. It is found that repairs on the compound are more difficult to make, and consequently more expensive than on the single-expansion engines; but on the whole it is very generally conceded that the compound saves its owners from ten to twenty-five per cent. over the older type.

The rapid increase of the size, and consequent coal-consuming capacity, of the modern locomotive has added another problem to engineering--that of keeping the yawning maw of the fire-box supplied with coal. There is a limit to the amount of work that the fireman can do, and the great engines in use at present tax even the strongest fireman to the utmost. If the size or speed of locomotives is increased very materially in the future it will be necessary to have two men, instead of one, as firemen, or to use mechanical stokers, or to find some other kind of fuel. In point of fact the mechanical stoker has been recently tried with success, and this will probably help in solving the problem. But there is also the strong probability that the use of liquid fuel will become more and more popular. At the present time many locomotives in the West and Southwest, as well as in Europe and in Asia, have been equipped with burners for the consumption of crude petroleum. No modification in the construction of the locomotive is required for this change of fuel except some slight alteration in the arrangement of the brickwork of the fire-box, and the introduction of the burners. These, however, are simple arrangements that throw into the fire-box, a spray of steam and vaporized oil, which burns freely and generates an intense and steady heat. With this kind of fuel the fireman need not be considered, as the largest engine thus equipped may be "fired" with far less labor than is required on the smallest coal-burning, narrow-gauge locomotive.

THE WESTINGHOUSE AIR BRAKE

The application of steam as a motive power for running trains of cars solved one great problem; but it created another. The second one was the problem of how to stop the trains once they had started. On short trains made up of the light cars used at first, the hand brakes were sufficiently effective for practical purposes. But as trains were increased in length and weight and were run at high speeds, it became imperative to find some means of stopping such trains quickly and with certainty.

With a hand brake working on each pair of trucks, as on passenger coaches, it was possible to make reasonably quick stops when there were enough members of the train crew to work all the brakes simultaneously. But in practice it was found impossible to maintain this ideal condition. For emergency stops the brakemen were summoned by signals of the whistle given by the engineer, and there was necessarily some little interval of time after this signal before the most alert crew could begin the relatively slow process of applying the brakes.

The engineer himself could give valuable aid in stopping the train by reversing his engine, the locomotive acting as a brake to check the oncoming cars. But this check acted only at the forward part of the train, and being applied suddenly, caused the rear cars to rush against the forward cars with terrific force, sometimes driving in the bumpers and wrecking the train. Obviously an ideal system of brakes must be one that acted upon all the cars of the train simultaneously and under control of the engineer; and presently such a system was invented by Mr. George Westinghouse.

Other inventors had tried to produce a practical system of brakes, such as those using steam as a working force, or systems of hand-wound springs; but Mr. Westinghouse utilized compressed air, and from the first his brakes proved effective.

His first air brake, operated successfully in 1869, was the "straight air brake" type--one that has now been replaced almost universally by the automatic. In this brake system there was an air reservoir on the locomotive, and steam was used for making the compression. From this reservoir a line of gas pipe ran through the cab of the engine beneath the tender and under each car, the space between the cars being bridged by rubber tubes and easily-adjusted couplings. This line of pipe, called the train pipe, was connected near the centre of each car with a cylinder which contained a piston with a stem which acted upon the brake shoes by means of a series of levers and connecting rods.

In the cab, placed conveniently for the engineer, was a valve by means of which he could cause the compressed air to flow into the train pipe and thus act upon the brake cylinders of the cars. This could be done gradually for making a slow stop, or with full force as the case required, and the brakes could be released by turning the valve to a point which opened a vent and allowed the air to escape.

The effect of this invention was revolutionary. Stopping the train was no longer dependent upon manual labor applied intermittently at different points, but was placed entirely in the hands of the engineer who applied the required power almost simultaneously at all points along his line of cars. Thus the brakeman was relieved of one of his perilous tasks, which on freight trains took a heavy toll in loss of lives.

This relatively simple, and usually effective, system had two grave defects. The first of these lay in the fact that if there was a leak--even a very small one--anywhere along the line of the train pipe or the brake cylinders, the brakes would not work, the compressed air being exhausted into the atmosphere instead of acting on the brake cylinders. The common accident of having his train "break in two" rendered the engineer powerless to stop the cars, and disastrous "runaways" sometimes resulted. The second defect, which became more and more apparent as the length of trains was increased, was the

impossibility of applying the air to the brakes of the rear cars as quickly as to those near the engine, since the compressed air could not travel the length of the train pipe instantaneously, on account of the frictional resistance.

These defects were quickly recognized by Mr. Westinghouse, and in 1876, seven years after he applied his first invention, he produced his automatic air brake which overcame them effectually. In this brake the train pipe and the air reservoir were retained as in the straight air brake system, but in addition each car was equipped with a storage reservoir of sufficient size to supply the brake cylinder. In place of the older arrangement in which the train pipe simply retained air at atmospheric pressure when not in use, the new system kept the air in the train pipe under a considerable pressure at all times when the brake was not in use. And, reversing the conditions of the straight air brake, the engineer in order to apply the brakes let out the air in the train pipe instead of forcing air into it, a "triple valve" on each car performing the work of operating the brake cylinder automatically.

The advantage of this system over the older one is obvious. Whereas the detachment of a portion of the train, or a leak in any part of the air brake system heretofore had left the engineer helpless, exactly the reverse condition was produced in the new system. Any leakage of air, either from a break or a defect, caused every brake on the entire train to be applied to the wheels and brought the train to a stop. Moreover, with the new system it was now possible to equip each car with a valve which would lessen the pressure of air in the train pipe so that the train could be brought to a stop by the trainmen in the rear or intermediate coaches as readily as by the engineer.

This system worked perfectly on passenger trains; but on long freight trains the resistance to the passage of the escaping air through the train tube was so great that if an emergency required the full force of the brake to be applied suddenly, the brakes of the rear cars did not come into use until several seconds after those of the forward cars. The result was that the momentum of the rear cars caused them to strike the forward cars with great violence. But Mr. Westinghouse overcame this defect by an ingenious use of the triple valve mechanism of each car, whereby the application of the emergency brake by the engineer caused the air in the train pipe on each car to be discharged simultaneously into the brake cylinder. In this manner the discharge of air not only allowed the brakes to act, but assisted them in doing so. This was only the case, however, when the emergency application of the brake was made, this system of venting on each car into the brake cylinder not being brought into play when ordinary stops were made. Thus the engineer in this quick-action automatic air brake has really two brakes at his command, one for making ordinary stops, the other for emergencies.

In 1891 a so-called high-speed air brake was perfected, this brake being really a modified quick-action automatic brake. This modification

consists of the addition of an automatic pressure-reducing valve connected with each brake cylinder. In the high-speed air brake as applied when the train is running rapidly, the highest possible pressure is applied at once to the wheels, but this pressure is lessened by the automatic pressure-reducing valves as the speed diminishes. This method of applying the brakes is the most effective way of getting the full benefit of their stopping power. This high-speed brake, therefore, represents the highest perfection in train-stopping devices.

We have referred here specifically to the air brake as used on steam railroads. In another chapter the subject has been touched upon in connection with electric railroads. In such brakes the compression of the air is accomplished by electricity instead of steam, but the general principles involved are the same as those just described.

It should not be understood that the Westinghouse air brake was the only one, or the only type of brake, devised and brought to practical perfection. For a time a vacuum brake, which utilized atmospheric pressure, offered keen rivalry. But eventually the type of brake perfected by Mr. Westinghouse, modified in certain details in the various countries of Europe and America, gained precedence, which it still retains.

AUTOMATIC COUPLINGS

The perfection of the air brake removed one great source of danger that menaced the crews of freight trains. There still remained another almost as great, particularly in the matter of maiming its victims, when not actually killing them. This was the old method of coupling freight cars as practiced in America. There were few old-time trainmen, indeed, who could show a complete set of full length digits, the buffers of the old-fashioned couplings being responsible for the lost and shortened members.

The freight brakeman has to make scores of couplings on every trip. And he literally took his life in his hands upon each and every occasion of making a coupling by the old method.

This old form of couplings consisted of two buffers--one on each car--joined together by an iron link about fifteen inches long, a movable pin inserted at either end holding the link in place and thus joining the cars. When a coupling was to be made the brakeman raised the pin in the buffer of the stationary car and tilted it at an angle in the pin-hole at the top of the buffer so that, while it remained raised, the jar of the striking buffers at the moment of coupling caused it to fall into place and complete the coupling. The link was left hanging in the moving car which was being shunted in to be coupled; but in this position the projecting end was so low that it would miss the hole in the opposite buffer, and thus fail to make the

coupling, unless raised and inserted just at the moment before the buffers came together.

This raising and inserting of the link was the dangerous part of making a coupling. It could only be done by the brakeman while standing between the cars. And he must raise the link, insert it, and remove his hand in a fraction of a second if the car was moving at a fair rate of speed, otherwise his fingers or hand would be caught between the buffers and crushed. And a crushed hand or arm meant subsequent amputation, for the force of the collision between the buffers crushed the bones beyond repair.

There was a way in which the coupling could be made whereby the hand was not endangered. This was by using a stick for raising and guiding the link into the buffer. Some railroads at first furnished sticks for this purpose. But no brakeman would stoop to use them. Had he done so he would have been hooted and jeered off the road by his train mates. And so his pride made him risk his limbs and his life, and fostered the recklessness of the old-time brakeman.

But in 1879 Mr. Eli Janney, of Pittsburg, patented an automatic car-coupler that was both simple and effective; and in 1887 the Master Car Builders' Association accepted this type of coupler. A little later the U. S. Government, influenced by the appalling loss of life among the brakemen, passed laws compelling all cars to be equipped with some form of automatic coupling device, and naturally the Janney coupling was the one adopted. In using this coupling the brakeman did not have to step into the dangerous position between the cars, either for making the coupling, or disconnecting the car. The act of coupling was done automatically, while the uncoupling was effected by the use of a lever operated from the side of the car.

A somewhat technical description of this coupling is as follows:

"The Janney coupling consists of a steel jaw fitted on one side with a knuckle or L-shaped lever turning on a vertical pin; this knuckle when being swung inward lifts a locking pin which subsequently drops and so prevents the return of the knuckle. An identical coupler is fitted to the end of the adjacent vehicle, and, so long as both or either of the knuckles are open when the vehicles come into contact, coupling will be effected; to uncouple, it is only necessary to raise either of the locking pins, by means of a chain or lever at the side of the vehicle. The knuckles have each a hole in them to permit of the use of the old link and pin coupler, when such a fitting is met with. At first, this coupling gave some trouble through the locking pins occasionally creeping upward, but in the larger model, which represents the later form, there is an automatic locking pawl that prevents this motion; owing, however, to the pawl being attached to the lifting shackle, it in no way interferes with the pin being raised when disconnecting."

Even before the invention of the Janney coupling a semi-automatic

coupling device had been used extensively on passenger cars. But this device which in effect was that of two crooked fingers hooked together, allowed the ends of the coaches to swing and roll in a manner most disagreeable to many passengers. The Janney couplings corrected this, since these couplings in their improved form hold the ends of the cars as in a vice.

A COMPARISON--THE OLD AND THE NEW

Stephenson's locomotive and its tender, when loaded to full capacity with fuel and water, weighed seven and three-quarter tons. The locomotive itself was a trifle over seven feet long. In 1909 the Southern Pacific Railway purchased a Mallet Compound locomotive which, with its tender, weighs three hundred tons, or approximately forty times the weight of the little _Rocket_. This great locomotive is over sixty-seven feet long, or some nine times the length of the _Rocket_, and will haul more than twelve hundred tons back of the tender.

[Illustration]

[Illustration: THE DEVELOPMENT OF THE LOCOMOTIVE.

The lower figure represents a longitudinal section of a modern French locomotive, for comparison with the sections of the famous engines of 1829. The weight of the "Rocket," with its four-wheel tender which carried 264 gallons of water and 450 pounds of coke was 4¼ tons. The French locomotive with its tender in working order, carrying 3300 gallons of water and five tons of coal, weighs 99 tons, and the length of the engine and tender is 56.3 feet.]

The cylinders of the _Rocket_ were eight inches in diameter, with a seventeen inch stroke; the high-pressure cylinders of this Mallet locomotive are twenty-six inches in diameter, and the low-pressure cylinders are forty inches. But curiously enough the driving wheels of the two engines show little discrepancy, those of the _Rocket_ being fifty-six inches in diameter, as against fifty-seven for those of the larger engine. The total heating surface of the _Rocket_ was one hundred and thirty-eight square feet, that of the new locomotive 6,393 square feet. To heat this great surface oil is used for fuel, so that the task for the fireman is lighter than on many locomotives less than one-half the size.

On this locomotive there are two sets of cylinders driving two sets of driving wheels on each side, making a total of sixteen drivers in all. From the size of these drivers it is evident that the engine is designed for strength rather than speed, although of course relatively high speed can be attained if desired. On the section of road over which it operates there is a maximum grade of one hundred and sixteen feet per mile, and it was for negotiating such grades with full loads that the locomotive was designed.

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Recipes from the Internet Archive etext of The Everyday Cookbook, by Miss E. Neill

STEAMED BROWN BREAD.

One quart each of milk and Indian meal, one pint rye meal, one cup of molasses, two teaspoonfuls of soda. Add a little salt and steam four hours.

STUFFED EGG-PLANT.

Cut the egg plant in two; Scrape out all the inside and put it in a saucepan with a little minced ham; cover with water and boil until soft; drain off the water; add two tablespoonfuls grated crumbs, tablespoonful butter, half a minced onion, salt and pepper; stuff each half of the hull with the mixture; add a small lump of butter to each and bake fifteen minutes.

MASHED SQUASH.

Peel, seed, and slice fresh summer squashes. Lay in cold water ten minutes; put into boiling water, a little salt, and cook tender. Twenty minutes will suffice if the squash be young. Mash in a colander, pressing out all the water; heap in a deep dish, seasoning with pepper, salt and butter. Serve hot.

BAKED SQUASH.

Cut in pieces, scrape well, bake from one to one and a half hours, according to the thickness of the squash; to be eaten with salt and butter as sweet potatoes.

FRIED SQUASHES.

Cut the squash into thin slices, and sprinkle it with salt; let it stand a few moments; then beat two eggs> and dip the squash into the egg; then fry it brown in butter

STRING BEANS.

String, snap and wash two quarts beans, boil in plenty of water about fifteen minutes, drain off and put on again in about two quarts boiling water ; boil an hour and a half, and add salt and pepper just before taking up, stirring in one and a half tablespoons butter rubbed into

two tablespoons flour and half pint sweet cream. Or boil a piece of salted pork one hour, then add beans and boil an hour and a half. For shelled beans boil half an hour in water enough to cover, and dress as above.

ROASTED SWEET POTATOES.

Having washed them clean, and wiped them dry, roast them on a hot hearth as directed for common potatoes; or put them in a Dutch oven or tin reflector. Roasted or baked potatoes should not be cut, but broken open and eaten from the skin, as from a shell.

TO BAKE SWEET POTATOES.

Wash them perfectly clean, wipe them dry, and bake in a quick oven, according to their size half an hour for quite small size, three quarters for larger, and a full hour for the largest. Let the oven have a good heat, and do not open it, unless it is necessary to turn them, until they are done.

FRENCH FRIED SWEET POTATOES.

Prepare and fry the same as the white potatoes. Or they can first be boiled half an hour, and then pared, cut and fried as directed. The latter is the better way, as they are liable to be a little hard if fried when raw.

Recipes from The Project Gutenberg EBook of *Mrs. Beeton's Dictionary of Every-Day Cookery*, by Isabella Mary Beeton

SALAD DRESSING (Excellent).

Ingredients.—4 eggs, 1 teaspoonful of mixed mustard, $\frac{1}{4}$ teaspoonful of white pepper, half that quantity of cayenne, salt to taste, 4 tablespoonfuls of cream, vinegar. Mode.—Boil the eggs until hard, which will be in about $\frac{1}{4}$ hour or 20 minutes; put them into cold water, take off the shells, and pound the yolks in a mortar to a smooth paste. Then add all the other ingredients, except the vinegar, and stir them well until the whole are thoroughly incorporated one with the other. Pour in sufficient vinegar to make it of the consistency of cream, taking care to add but little at a time. The mixture will then be ready for use. Average cost, for this quantity, 7_d. Sufficient for a moderate-sized salad.

Note.—The whites of the eggs, cut into rings, will serve very well as

a garnishing to the salad.

SALAD DRESSING (Excellent).

Ingredients.—1 egg, 1 teaspoonful of salad oil, 1 teaspoonful of mixed mustard, $\frac{1}{4}$ teaspoonful of salt, $\frac{1}{2}$ teaspoonful of pounded sugar, 2 tablespoonfuls of vinegar, 6 tablespoonfuls of cream. Mode.—Prepare and mix the ingredients by the preceding recipe, and be very particular that the whole is well stirred.

Note.—In making salads, the vegetables, &c., should never be added to the sauce very long before they are wanted for table; the dressing, however, may always be prepared some hours before required. Where salads are much in request, it is a good plan to bottle off sufficient dressing for a few days' consumption, as, thereby, much time and trouble are saved. If kept in a cool place, it will remain good for 4 or 5 days.

Poetic Recipe for Salad.—The Rev. Sydney Smith's recipe.

“Two large potatoes, pass'd through kitchen sieve,
Smoothness and softness to the salad give:
Of mordent mustard add a single spoon,
Distrust the condiment that bites too soon;
But deem it not, thou man of herbs, a fault,
To add a double quantity of salt:
Four times the spoon with oil of Lucca crown,
And twice with vinegar procured from 'town;
True flavour needs it, and your poet begs,
The pounded yellow of two well-boil'd eggs.
Let onion's atoms lurk within the bowl,
And, scarce suspected, animate the whole;
And, lastly, in the flavour'd compound toss
A magic spoonful of anchovy sauce.
Oh! great and glorious, and herbaceous treat,
’Twould tempt the dying anchorite to eat.
Back to the world he'd turn his weary soul,
And plunge his fingers in the salad-bowl.”

SALAD, French.

Ingredients.—Lettuces; a little chopped burnet. To every 4 tablespoonfuls of oil allow $1\frac{1}{2}$ of either Tarragon or plain French vinegar; 1 saltspoonful of salt, $\frac{1}{2}$ saltspoonful of pepper.

Mode.—Wash the lettuces, shake them in a cloth, and cut them into inch lengths. Put the lettuce into a salad-bowl, sprinkle over the chopped burnet, and mix these well together. Put the salt and pepper into the salad-spoon, moisten with the vinegar, disperse this amongst the salad, pour the oil over, and mix the whole well together for at least five minutes, when the preparation will be ready for table. This

is the very simple and expeditious mode of preparing a salad generally adopted by our French neighbours, who are so noted for the delicious manner in which they dress their bowl. Success will not be obtained if the right vinegar is not procured, therefore we advise our friends who wish to excel in making a French salad to procure a bottle of the best French vinegar, flavoured with Tarragon or not as the taste may dictate. Those persons living in or near London, can purchase the vinegar of Messrs. Crosse & Blackwell, Soho Square, at whose establishment the quality of this important ingredient in a salad can be relied on. _Time._—To be stirred at least 5 minutes after all the ingredients are put in. _Sufficient._ Allow 2 moderate-sized lettuces for 4 persons. _Seasonable._ Plentiful in summer, but scarce and dear during the winter season.

SALAD, Fresh Fruit (A Dessert Dish).

Mode.—Fruit salads are made by stripping the fruit from the stalks, piling it on a dish, and sprinkling over it finely pounded sugar. They may be made of strawberries, raspberries, currants, or any of these fruits mixed; peaches also make a very good salad. After the sugar is sprinkled over, about 6 large tablespoonfuls of wine or brandy, or 3 tablespoonfuls of liqueur, should be poured in the middle of the fruit; and, when the flavour is liked, a little pounded cinnamon may be added. In helping the fruit, it should be lightly stirred, that the wine and sugar may be equally distributed. _Sufficient._—1½ pint of fruit, with 3 oz. of pounded sugar, for 4 or 5 persons. _Seasonable_ in summer.

SALAD, Red Cabbage.

Ingredients.—A small red cabbage, 2 teaspoonfuls of salt, ½ pint of vinegar, 3 teaspoonfuls of oil, a small quantity of cayenne pepper. _Mode._—Take off the outside leaves of a fresh red cabbage, and cut the remainder very finely into small thin slices. Mix with the cabbage the above salad ingredients, and let it remain for two days, when it will be fit for use. This salad will keep very well for a few days. The quantity of the ingredients may of course be a little varied, according to taste. _Time._—2 days. _Average cost_, from 2_d._ to 3_d._ each. _Seasonable_ in July and August.

SALAD, Summer.

[Illustration: SALAD IN BOWL.]

Ingredients.—3 lettuces, 2 handfuls of mustard-and-cress, 10 young radishes, a few slices of cucumber. _Mode._—Let the herbs be as fresh as possible for a salad, and, if at all stale or dead-looking, let them lie in water for an hour or two, which will very much refresh them. Wash and carefully pick them over, remove any decayed or worm-eaten

leaves, and drain them thoroughly by swinging them gently in a clean cloth. With a silver knife, cut the lettuces into small pieces, and the radishes and cucumbers into thin slices; arrange all these ingredients lightly on a dish, with the mustard-and-cress, and pour under, but not over the salad, either of the salad dressings, and do not stir it up until it is to be eaten. It may be garnished with hard-boiled eggs, cut in slices, sliced cucumbers, nasturtiums, cut vegetable-flowers, and many other things that taste will always suggest to make a pretty and elegant dish. In making a good salad, care must be taken to have the herbs freshly gathered, and thoroughly drained before the sauce is added to them, or it will be watery and thin. Young spring onions, cut small, are by many persons considered an improvement to salads; but, before these are added, the cook should always consult the taste of her employer. Slices of cold meat or poultry added to a salad make a convenient and quickly-made summer luncheon-dish; or cold fish, flaked, will also be found exceedingly nice, mixed with it. Average cost, 9_d. for a salad for 5 or 6 persons; but more expensive when the herbs are forced. Sufficient for 5 or 6 persons. Seasonable from May to September.

SALAD, Winter.

Ingredients.—Endive, mustard-and-cress, boiled beetroot, 3 or 4 hard-boiled eggs, celery. Mode.—The above ingredients form the principal constituents of a winter salad, and may be converted into a very pretty dish, by nicely contrasting the various colours, and by tastefully garnishing it. Shred the celery into thin pieces, after having carefully washed and cut away all worm-eaten pieces; cleanse the endive and mustard-and-cress free from grit, and arrange these high in the centre of a salad-bowl or dish; garnish with the hard-boiled eggs and beetroot, both of which should be cut in slices; and pour into the dish, but not over the salad, either of the salad dressings. Never dress a salad long before it is required for table, as, by standing, it loses its freshness and pretty crisp and light appearance; the sauce, however, may always be prepared a few hours beforehand, and when required to use, the herbs laid lightly over it. Average cost, 9_d. for a salad for 5 or 6 persons. Sufficient for 5 or 6 persons. Seasonable from the end of September to March.

SALMON (à la Genévése).

Ingredients.—2 slices of salmon, 2 chopped shalots, a little parsley, a small bunch of herbs, 2 bay-leaves, 2 carrots, pounded mace, pepper and salt to taste, 4 tablespoonfuls of Madeira, ½ pint of white stock, thickening of butter and flour, 1 teaspoonful of essence of anchovies, the juice of 1 lemon, cayenne and salt to taste. Mode.—Rub the bottom of a stewpan over with butter, and put in the shalots, herbs, bay-leaves, carrots, mace, and seasoning; stir them for 10 minutes over a clear fire, and add the Madeira or sherry; simmer gently for

½ hour, and strain through a sieve over the fish, which stew in this gravy. As soon as the fish is sufficiently cooked, take away all the liquor, except a little to keep the salmon moist, and put it into another stewpan; add the stock, thicken with butter and flour, and put in the anchovies, lemon-juice, cayenne, and salt; lay the salmon on a hot dish, pour over it part of the sauce, and serve the remainder in a tureen. _Time._—1½ hour. _Average cost_ for this quantity, 3_s._ 6_d._
Sufficient for 4 or 5 persons.

Recipes from The Project Gutenberg EBook of Sandwiches, by Sarah Tyson Heston Rorer

Sandwiches à la Rorer

Chop sufficient white meat of cooked chicken to make a half pint. Select two fine bunches of cress, and with a sharp knife shave it very fine. Wash and dry the crisp portion from a head of lettuce. Put the yolks of two eggs into a saucepan, add the juice from two lemons and stir over hot water until the mixture is thick; take from the fire and add slowly two tablespoonfuls of olive oil; add this to the chicken and season with a half teaspoonful of salt and a dash of pepper. Butter a slice of white bread, put over a rather thick layer of the chicken mixture, then a slice of brown bread, buttered on both sides; cover this with a thick layer of cress, dust it lightly with salt and pepper, then another slice of white bread, buttered; press these firmly together, trim the crusts and cut into fingers.

Salt-Cucumber Sandwiches

Spread the bread, and cut the slices about half an inch thick. Then cut a German or Holland cucumber into very thin slices; put these slices all over the bread. Take the center from a head of lettuce; hold it together, and slice it down in sort of shreds; put this over the cucumber, and have ready some white meat of chicken, cut into the thinnest possible slices, and cover the lettuce with chicken; then sprinkle over more shredded lettuce and a little mayonnaise; put over another slice of buttered bread; press the two together, trim into shape and serve on a napkin in a pretty wicker basket.

Spanish Sandwiches

Mash the hard-boiled yolks of three eggs, add twelve boiled shrimps, either pounded in a mortar or chopped very fine. Add three tablespoonfuls of olive oil or butter, a tablespoonful of tomato catsup, two saltspoonfuls of paprika, four tablespoonfuls of chopped parsley, a half teaspoonful of salt, and at last stir in four tablespoonfuls of mayonnaise dressing. Spread this between thin slices of buttered bread,

trim the crusts and cut into shape.

Salmon Sandwiches

Flake cold boiled salmon, or open a can of salmon, drain it free from oil and break the fish apart in good-sized flakes; sprinkle them with salt, pepper and lemon juice. Butter slices of whole wheat or brown bread, cover with a layer of the salmon, then a thick layer of chopped cress or shredded celery. Put a tablespoonful of mayonnaise in the middle and cover with another slice of buttered bread. Press together, trim the crusts and cut into triangles.

Swedish Sandwiches

Flake any cold cooked fish, dust it with salt, pepper and lemon juice. Rub the bottom of a bowl with a clove of garlic, add a half cupful of mayonnaise, four finely chopped gherkins, twelve chopped olives and two tablespoonfuls of capers. Mix and stir in two tablespoonfuls of finely chopped parsley. Spread a thin layer of this dressing over a plain slice of bread, do not butter the bread, cover it with fish, put on top a crisp lettuce leaf, then cover with another slice of bread that has been spread with the dressing. Press, trim the crusts and cut into fingers.

SOLON'S WORDS OF WISDOM TO CROESUS

HERODOTUS

The Project Gutenberg EBook of *The Best of the World's Classics, Restricted to prose. Volume I (of X) - Greece*, by Various

Born in Asia Minor, probably in 484 B.C.; died in Italy, probably in 424; commonly called the "Father of History"; assisted in the expulsion of the tyrant Lygdamis from Halicarnassus; traveled in Persia, Egypt, and Greece; lived afterward in Samos and Athens, settling in Thurii, Italy, about 444 B.C.; his history of the Persian invasion of Greece, extending to 479 B.C., was first printed in Greek by Aldus Manutius in 1502, but a Latin version had appeared in 1474.[1]

When all these conquests had been added to the Lydian empire, and the prosperity of Sardis[3] was now at its height, there came thither, one after another, all the sages of Greece living at the time, and among them Solon, the Athenian. He was on his travels, having left Athens to be absent ten years, under the pretense of wishing to see the world, but really to avoid being forced to repeal any of the laws which at

the request of the Athenians he had made for them. Without his sanction the Athenians could not repeal them, as they had bound themselves under a heavy curse to be governed for ten years by the laws which should be imposed on them by Solon.

On this account, as well as to see the world, Solon set out upon his travels, in the course of which he went to Egypt to the court of Amasis,[4] and also paid a visit to Croesus at Sardis. Croesus received him as his guest, and lodged him in the royal palace. On the third or fourth day after, he bade his servants conduct Solon over his treasuries and show him all their greatness and magnificence. When he had seen them all, and so far as time allowed inspected them, Croesus addrest this question to him: "Stranger of Athens, we have heard much of thy wisdom and of thy travels through many lands, from love of knowledge and a wish to see the world. I am curious therefore to inquire of thee, whom of all the men that thou hast seen thou deemest the most happy?"

This he asked because he thought himself the happiest of mortals; but Solon answered him without flattery, according to his true sentiments, "Tellus of Athens, sire." Full of astonishment at what he had heard Croesus demanded sharply, "And wherefore dost thou deem Tellus happiest?" To this the other replied: "First, because his country was flourishing in his days, and he himself had sons both beautiful and good, and he lived to see children born to each of them, and these children all grew up; and further, because after a life spent in what our people look upon as comfort, his end was surpassingly glorious. In a battle between the Athenians and their neighbors near Eleusis, he came to the assistance of his countrymen, routed the foe, and died upon the field most gallantly. The Athenians gave him a public funeral on the spot where he fell, and paid him the highest honors."

Thus did Solon admonish Croesus by the example of Tellus, enumerating the manifold particulars of his happiness. When he had ended, Croesus inquired a second time, who after Tellus seemed to him the happiest, expecting that at any rate he would be given the second place. "Cleobis and Bito," Solon answered: "they were of Argive race; their fortune was enough for their wants, and they were besides endowed with so much bodily strength that they had both gained prizes at the games. Also, this tale is told of them: There was a great festival in honor of the goddess Juno at Argos, to which their mother must needs be taken in a car. Now, the oxen did not come home from the field in time; so the youths, fearful of being too late, put the yoke on their own necks, and themselves drew the car in which their mother rode. Five and forty furlongs did they draw her, and stopt before the temple. This deed of theirs was witnessed by the whole assembly of worshipers, and then their life closed in the best possible way. Herein, too, God showed forth most evidently how much better a thing for man death is than life. For the Argive men stood thick around the car and extolled the vast strength of the youths; and the Argive women extolled the mother who was blest with such a pair of sons; and the

mother herself, overjoyed at the deed and at the praises it had won, standing straight before the image, besought the goddess to bestow on Cleobis and Bito, the sons who had so mightily honored her, the highest blessing to which mortals can attain. Her prayer ended, they offered sacrifice and partook of the holy banquet, after which the two youths fell asleep in the temple. They never woke again, but so passed from the earth. The Argives, looking on them as among the best of men, caused statues of them to be made, which they gave to the shrine at Delphi."

When Solon had thus assigned these youths the second place Croesus broke in angrily, "What, stranger of Athens! is my happiness then so utterly set at naught by thee that thou dost not even put me on a level with private men?"

"O Croesus," replied the other, "thou askedst a question concerning the condition of man, of one who knows that the Power above us is full of jealousy, and fond of troubling our lot. A long life gives one to witness much, and experience much oneself, that one would not choose. Seventy years I regard as the limit of the life of man. In these seventy years are contained, without reckoning intercalary months, twenty-five thousand and two hundred days. Add an intercalary month to every other year, that the seasons may come round at the right time, and there will be, besides the seventy years, thirty-five such months, making an addition of one thousand and fifty days. The whole number of the days contained in the seventy years will thus be twenty-six thousand two hundred and fifty, whereof not one but will produce events unlike the rest. Hence man is wholly accident.

"For thyself, O Croesus, I see that thou art wonderfully rich, and art the lord of many nations; but with respect to that whereon thou questionest me, I have no answer to give, until I hear that thou hast closed thy life happily. For assuredly he who possesses great store of riches is no nearer happiness than he who has what suffices for his daily needs, unless it so hap that luck attend upon him, and so he continue in the enjoyment of all his good things to the end of life. For many of the wealthiest men have been unfavored of fortune, and many whose means were moderate have had excellent luck. Men of the former class excel those of the latter but in two respects: these last excel the former in many. The wealthy man is better able to content his desires, and to bear up against a sudden buffet of calamity. The other has less ability to withstand these evils (from which, however, his good luck keeps him clear), but he enjoys all these following blessings: he is whole of limb, a stranger to disease, free from misfortune, happy in his children, and comely to look upon.

"If in addition to all this he ends his life well, he is of a truth the man of whom thou art in search, the man who may rightly be termed happy. Call him, however, until he die, not happy but fortunate. Scarcely indeed can any man unite all these advantages: as there is no country which contains within it all that it needs, but each while it

possesses some things lacks others, and the best country is that which contains the most, so no single human being is complete in every respect--something is always lacking. He who unites the greatest number of advantages, and retaining them to the day of his death, then dies peaceably--that man alone, sire, is in my judgment entitled to bear the name of 'happy.' But in every matter it behooves us to mark well the end: for oftentimes God gives men a gleam of happiness, and then plunges them into ruin."

Such was the speech which Solon address to Croesus, a speech which brought him neither largess nor honor. The king with much indifference saw Solon depart, since the former thought that a man must be an arrant fool who made no account of present good, but bade men always wait and mark the end.

FOOTNOTES:

[Footnote 1: Herodotus, at a certain period in his life, came under the influence of Pericles and his contemporaries, but it is clear from his writings that he received from Attic thought and style little definite inspiration. J. P. Mahaffy has likened him to Goldsmith in his aloofness from his environment. Often ridiculed by his friends for simplicity, Goldsmith far exceeded his clever critics in directness and pathos, and thus gained a place in literature which contemporaries never dreamed would be his. The narrative of Herodotus, adds Mahaffy, gives us more information about the state of the ancient nations and their culture than all other Greek historians put together. His purpose, as Herodotus himself declares, was to narrate the great conflict between the Greeks and barbarians, in order that the causes might be known and glorious deeds might not perish. Readers are impressed by the perfect ease and mastery with which a great variety of subjects are dealt with, his story "advancing with epic grandeur to its close." Mahaffy pronounces Herodotus an Ionic story-writer, who never became an Attic one--the chief master of Ionic, as Thucydides was of Attic prose.]

[Footnote 2: From Book I of the "History." Translated by George Rawlinson. Croesus reigned from 560 B.C. to 546. The visit of Solon was made some time before 559.]

[Footnote 3: The capital of Lydia, in Asia Minor, and a flourishing city in the time of Croesus. It was several times destroyed, the last time by Tamerlane. Its site is now a village.]

[Footnote 4: Amasis came to the Egyptian throne in 569 B.C., and reigned 44 years.]

SWAN'S STRANGE STORY.

The Project Gutenberg EBook of *Literary Byways*, by William Andrews

A Biographical Romance.

In the olden days the misfortunes of William Swan frequently formed the topic of conversation amongst friends, who gathered round the fireside in the homes on the wild wolds of Yorkshire, where he spent some years of his disappointed life. The full details of his career have been lost in the lapse of time; never, to our knowledge, have they been committed to paper, but sufficient particulars may be brought together to prove in his case the truth of the old saying that "fact is stranger than fiction."

Nearly two centuries ago there was joy in Benwell Hall, near Newcastle-on-Tyne, the stately mansion of Richard Swan, Esq., the occasion of the rejoicing being the birth of an heir. The parents dreamed of a bright future for their boy, and proudly predicted that he would, in a worthy manner, perpetuate the name and fame of Swan. The happy expectations of boyhood were not to be realised, for the young heir had barely reached the age of nine years, when he was kidnapped from his home, in order that another might inherit the wealth that by kinship belonged to him. He was quietly shipped on board the "New Britannia" brig, which formed part of the squadron under command of the famous Sir Cloudesley Shovel. His position was that of a "powder monkey," and his chief employment was to bring powder from the magazine to the gunners during the naval engagements. On the 22nd of October, 1707, the fleet was wrecked on the Scilly Isles, owing to the Admiral mistaking the rocks for the sea-coast. No less than eight hundred brave men found a watery grave, and several vessels were lost. Happily the ship in which Swan sailed escaped destruction. Ill-fate, however, followed in its wake, for, shortly afterwards, it was captured by an Algerine corsair, and Swan was sold to the Moors as a slave. Four weary years were passed in Barbary. He gained his liberty through the assistance of the Redeeming Friars, a noble body of men who were the means of freeing thousands of Christians from captivity. Many benevolent persons left large sums of money for redeeming their fellow countrymen from bondage, and this money was expended judiciously through the agency of the Friars.

Swan had not the good fortune to reach his home in safety. He was again taken prisoner, and sold once more into slavery, this time to an English planter in South Carolina. Here his sufferings were terrible. He toiled with negroes from sunrise to sunset, the slave-drivers keeping them busy at work in the cotton and sugar plantations by means of the lash. Managing to escape, he landed, after an exile of twenty years, on his native shore in 1726, and speedily made his way to Newcastle-on-Tyne. His father's footman, Thomas Chance, and his old nurse, Mrs. Gofton, identified him, and he at once instituted a claim for the estate of his uncle, Alderman Swan, Mayor of Hull, who had died and left property yielding an income of

£20,000 a year. His efforts proved unsuccessful, and the deep disappointment broke his heart, his death occurring in 1736, at the age of thirty-eight years.

Swan had married a Yorkshire woman called Jane Cole, of North Dalton, near Driffield, by whom he had a son named William. The widowed mother told her boy, as soon as he was able to understand, that he was the rightful heir to vast estates, and encouraged him to persevere to obtain them. The melancholy fate of her husband was not sufficient to crush her ardent spirit. A lawyer at Driffield was consulted, and he advised that action be taken. He undertook to conduct the case without payment until the estates were obtained, beyond the sums for correspondence, court fees, etc. The man, however, drained the poor fellow of every penny that he could procure, and both mother and son denied themselves the necessities of life to keep up the constant demands of the solicitor. Months and years passed without getting any satisfaction. Poor Mrs. Swan at last felt the case to be hopeless, and the anxious waiting, with its disappointing results, preyed so on her mind that she fell into ill-health and died. Speaking to her son before her death, she said: "Oh, William, let this horrid plea drop. Don't pay that man any more money. I feel that he would skin us both alive. They are a bad set all these law men." William was young, and like the majority of young people, hope was firmly fixed in his nature. He not only devoted all his money to law, but bought a second-hand copy of "Blackstone's Commentaries," and spent all his leisure time in studying it, until he was complete master of the work. After the death of his mother, he gave up house-keeping, and took lodgings with a widow, having a daughter about twenty-four years of age. They became interested in his case, and lent him money to carry on his suit. A rich uncle had left the girl a few hundred pounds. The young couple were brought into sympathy with each other, which ripened into mutual affection, and in a short time, with the consent freely given of the mother, they were married. Shortly after the wedding it transpired that the attorney at Driffield had been cheating his client, and instead of using the hard-earned money of William Swan to gain his estates, he had spent it in dissipation, and was a ruined man.

Swan proceeded to London, and consulted another lawyer. This man advised an action which swallowed up the wife's small fortune, without getting them one step nearer obtaining the estate. Trouble after trouble came upon William. His heart was almost crushed, but he continued the action to the best of his ability. His wife begged of him to leave law alone, to return to their Yorkshire home, live by their industry, and give up all thoughts of the property. He refused to act upon her good advice. He got into debt, and was committed to the Fleet prison on his inability to pay. Here ill luck still followed him, for he caught the jail fever. In his sickness his devoted wife got permission to visit him, and bring him some delicacies. She, alas, caught the fever, and in a few days died. He recovered, but the death of his loving helpmate was almost too much for him. She had endured much for his sake, but never by word or deed showed regret at becoming his wife. Shortly afterwards a jail delivery enabled him to leave prison. His illness rendered him so weak that he could hardly walk. He obtained

lodgings in an obscure lane or alley near Chiswell Street, and afterwards was found dead in bed. It is believed that his remains were buried in a pauper's grave.

SUICIDE IN THE TRENCHES

Project Gutenberg's *Counter-Attack and Other Poems*, by Siegfried Sassoon

I knew a simple soldier boy
Who grinned at life in empty joy,
Slept soundly through the lonesome dark,
And whistled early with the lark.

In winter trenches, cowed and glum,
With crumps and lice and lack of rum,
He put a bullet through his brain.
No one spoke of him again.

* * * * *

You snug-faced crowds with kindling eye
Who cheer when soldier lads march by,
Sneak home and pray you'll never know
The hell where youth and laughter go.

The Project Gutenberg eBook, *The Hundred Best English Poems*, by Various,
Edited by Adam L. Gowans

16. *She Walks in Beauty.*

Lord Byron.

I.

She walks in Beauty, like the night
Of cloudless climes and starry skies;
And all that's best of dark and bright
Meet in her aspect and her eyes:
Thus mellowed to that tender light
Which Heaven to gaudy day denies.

II.

One shade the more, one ray the less,
Had half impaired the nameless grace
Which waves in every raven tress,
Or softly lightens o'er her face;

Where thoughts serenely sweet express,
How pure, how dear their dwelling-place.

III.

And on that cheek, and o'er that brow,
So soft, so calm, yet eloquent,
The smiles that win, the tints that glow,
But tell of days in goodness spent,
A mind at peace with all below,
A heart whose love is innocent!

SUCCESS.

Project Gutenberg's *Poems: Three Series, Complete*, by Emily Dickinson

[Published in "A Masque of Poets"
at the request of "H.H.," the author's
fellow-townswoman and friend.]

Success is counted sweetest
By those who ne'er succeed.
To comprehend a nectar
Requires sorest need.

Not one of all the purple host
Who took the flag to-day
Can tell the definition,
So clear, of victory,

As he, defeated, dying,
On whose forbidden ear
The distant strains of triumph
Break, agonized and clear!

SECURITY RISK

by Ed M. Clinton, Jr.

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At moments like this, General David Walker always thought fleetingly of the good old days when he had hated the army. As usual, he smashed the thought out of his mind with a distinct sense of remorse.

He looked up again at the seamed face of the Chief of Staff, General Marcus Meriwether. "This could be serious," he said slowly, with a sick sense of the statement's inadequacy. An old tic suddenly returned, tugging at the left corner of his mouth.

The deadly, unsmiling expression on Meriwether's face did not change as he slid more tightly into his chair. "You know as well as I that it means the Interplanetary Confederation is ready to go to war with us."

Walker stared at the typed statement on his desk. It was a decoded intelligence message from United Terra's prime agent in the Interplanetary Confederation, and it was very brief: the Confederation had developed a long-range neural weapon effectively cancelling out every armament development achieved by United Terra in fifteen years of a cold war that of late had become bitter cold. The all-but-autonomous colonies of Mars and Venus, united now for twenty years in an economic league, had been itching for independence for a quarter of a century. The itch had developed into a mighty burning.

"You are fully aware," Meriwether continued, his face still set, "of our feeling that the Confederation has been eager to take on Terra. They've clearly been waiting for some positive advantage to offset our pure strength-in-numbers."

[Illustration: __It was a touchable touching an untouchable. Both scientist and general were doing their own version of right....__]

Walker forced his eyes upward and stared at his superior. "Your tone says that such a war might be—"

"Unwelcome at this time. Unwelcome at this time." Meriwether shifted around in his chair, and scratched at its leather arms with the

manicured tips of his gnarled fingers. "Walker, I don't have to tell you that this weapon, if it is what our agent infers—and there is no reason to believe otherwise—that this weapon makes it impossible for us to go to war with the Confederation—unless, as Chief of Weapons Development, you can tell me that we have something in our arsenal to combat it."

Walker rubbed at the tic. "Nothing," he said quietly.

Meriwether leaned forward, his hands crooked backward against the chair arms like catapult springs. "That answer is unacceptable. There are other questions you must answer, Walker, questions in some ways even more important than that basic one. Why haven't we developed this weapon ourselves? Why haven't we been aware of its potential existence? Where are the defensive devices which would naturally develop from such cognizance? These things are all your department, Walker." His voice pitched upward an hysterical fraction. "It just doesn't make sense, you know. We've a hundred times the personnel, ten times the facilities, unlimited funds—but they've beaten us to it." He stood up and pushed his chair back, eyes squinting out of a reddening face that seemed on the point of bursting. "Why, Walker?"

Once again Walker thought about how he had hated the army when he was a bright young physics student. That was a long time ago—So much had happened. The doors had closed around him, one at a time, doors closing on the scientific mind. And so now, instead of a research scientist in white smock with textbook, he was a military administrator in smart greys with glittering stars of military rank.

"I'll say this, Walker," Meriwether shouted, his voice breaking again. "We'd better catch up quick. Mighty quick. Let's put it this way. It might mean your rank and your job, Walker. But you won't give a damn. Because we'll have lost the war. We'll have lost the colonies. And you know what that would mean, Walker?" He bent forward across the desk, his face exploding into Walker's eyes. "Only a fool believes that United Terra can survive in an economy without tri-planetary hegemony."

"Walker, you've all the authority within my power to grant. You'll have no trouble getting money. But—get the answer. _Quick._"

Walker blinked after him as he strode to the door. "I'll try to hold off a federal investigation as long as I can," Meriwether added, turning from the half-opened door. "But I can't guarantee a thing."

Walker sat alone in a cubicle of light in the darkened city and gulped down his twentieth cup of coffee. It had grown cold in the cup and with a grimace he pushed it aside.

There was no doubt about it. He thumbed through the sheaf of scribbled notes he had transcribed from stacks of documents and racks of spools

from Security files. Clearly, he had the answer to Meriwether's questions. But, having it, he did not quite know what to do with it.

There was, however, no doubt at all: United Terra had been on the track of the neural weapon—ten years earlier. Could have had it—and had lost the chance.

He rubbed his thumbs hard against his tired eyes and tried to remember back that ten years: at that time he had been Chief of Weapons Development for perhaps three years. His own name, though, had appeared in none of the files he had examined, so apparently he had not been directly involved in the security hearings. But he should remember.

Dr. Otto Millet. Otto Millet. He let the name roll around his brain, until shortly an image began to form—an image of a smiling man, greying at the temples, wearing a flamboyant sports shirt and affecting a very close haircut. A man perhaps forty. In the image, he was a laughing man.

He remembered now. Dr. Otto Millet: into government service on the inertia of a fantastic reputation as a research physicist specializing in magnetic field studies. A man he had instantly disliked.

He bent forward and reread what he had scrawled in his last notes, a verbatim extract from the report of the security committee.

"It is clear that Dr. Millet's conversations and letters with Professor Greyman, together with his unrepentant attitude, render him a security risk. His various security clearances are therefore revoked, and he is hereafter prohibited access to all classified files and to any government research and development laboratory."

Since virtually all laboratories were government supported, that was to all intents and purposes the end of Millet's career as an experimental physicist.

Where had Millet gone? What had he done since? Walker scraped a cigarette out of the half-empty pack in his pocket. More important: what was he doing now?

He inhaled deeply and sent clouds of smoke skewing across the room. Had the man really been a traitor? Walker tried to place himself in the time of Millet's hearing. He'd been not too many years out of school then, with the bitterness of his frustrated ambition to be a research physicist still rankling him; perhaps this had colored his view of Millet. He stared at his desk, almost shocked that this thought should have occurred to him. It shook him, for it told him something about himself which he did not particularly care to know.

Nowhere had he been able to find any evidence as to what had happened to Millet since. Banished, the government seemed to forget him. But one thing was clear to Walker, and he pondered it deeply as he sucked on the

last quarter-inch of his cigarette and poured himself another cup of cold black coffee. One big thing: Millet had been directing development along lines that would have led to the neural weapon; he had even signed a report, early in his project effort, which had referred to the possibility of "a neural device."

Had he gone over to the Confederation? It would account for their possession of the weapon now. But surely—_surely_, this fact would have been observed and reported by Terran intelligence agents.

Walker, infinitely tired, forgot his coffee and began to tidy up the desk, filing everything he wanted to keep in an electronically locked cabinet, shoving everything else into the destruction of the vibrator. He pondered for a moment the powdered secrets that were heaped like black dust in the bottom of the canister: a symbol of safety to a terrified world.

Step one: find Millet. _Find Millet._

It took the Secret Service exactly twenty-nine hours to locate Dr. Otto Millet. Thirty minutes later, Walker was climbing out of a government helicopter and staring at Millet's small house through squinted eyes which he shielded with both hands against the blazing desert sun. The house was fronted by a neat lawn and a white fence entwined with red roses; there appeared to be a rather large garden in the rear. The style of the house bothered him a little: it had passed out of popularity thirty years before. Its lack of a conventional rooftop had forced them to land the 'copter on the desert itself.

He straightened and pushed through the creaking gate. Flagstone steps curved toward the porch, and he minced along them, uncertain, now that he had arrived, of what he would say to Millet. The damned house, he thought—so different from what he had expected; it had thrown his whole thinking out of order.

He hated himself for feeling uneasy.

There was neither vodor nor contact system of any kind at the door, and he brushed his hand against his forehead in a gesture of frustration. He stared at his palm—it had come away wet with sweat, and he wondered if it were all because of the desert sun.

Tentatively, he banged on the door with his fist. There was no answer.

Damn Millet, he thought, wiping his forehead again. Why couldn't the man have a videophone like any normal person so you could find out if he were home without taking a trip halfway across the country?

He turned, stamping angrily as he did so, and was startled to see a man,

wearing work clothes and holding a pair of heavy soiled gloves in his left hand, standing on the ground by the end of the porch. He was nearly bald, intensely bronzed, and he was smiling.

"Wondered when you'd see me." He nodded toward the gate. "I was standing right there when you came up. You just breezed right past." His smile broadened. "You were so interested in being surprised that you couldn't see what you came for."

"It must have been that damned glare," muttered Walker, shaking his head. Then, impolitely, "Are you Millet?"

"Otto Millet," the other replied, inclining his head slightly. "You're from the government. I can tell because of the uniform, you see." Walker flushed. "The government hasn't thought about me in a number of years," the scientist added. He came up onto the porch and peered at the symbol on the left lapel of Walker's jacket. "Ah! Alma mater. Weapons Development." He squinted at Walker. "David Walker, I presume?" He chuckled loudly but Walker failed to see the humor. "I remember you, you see; what a shame you can't return the compliment."

"It's hot out here," complained Walker, in growing discomfort.

Millet opened the door. "Won't you come in? It's better inside."

There it was again, thought Walker; the insolence, the imperturbable smile. He grunted and went in; it was, mercifully, considerably cooler.

He looked around. It was a very cluttered living room, not messy but tossed about with the artifacts that the man obviously liked to have around him. There was an ancient painting by Bonestell hanging on one wall, a startlingly accurate twentieth-century concept of the appearance of Mars; several long pipe racks, filled to overflowing, in various spots around the room; a typewriter on a table in a corner, and piles of paper; books lining the walls, and stacked on the floor in heaps and on the table beside the typewriter; a map of the earth on the wall above the typewriter, a three-dimensional Waterson projection. The furniture was clean but—not old; _lived with_.

Walker went over to the wall map and peered closely.

"One of Waterson's first," remarked Millet, closing the door. "Sit down, Walker, and tell me all about Weapons Development. How is the mass murder department doing these days?"

Walker felt his ears redden and he was arrested in the very act of sitting down. "Really," he said, "it's not something we _like_ to think about, you know."

"Suppose not." Millet fiddled with several pipes in a rack beside his chair, selected one, and began filling it with rough-cut tobacco from a

battered canister. "To business, then. Why the visit?"

Walker cleared his throat and tried to remember the little prefatory weasel words he had painfully assembled during the flight from Omaha. "First of all, Dr. Millet, I find myself a little embarrassed. After all, your parting from government service was not of the happiest nature for you—"

"Don't be foolish. Happiest day of my life, Walker."

Walker had a sudden sense of being impaled, and the rest of the little speech was dissipated in the wave of shock which swept over him. He forced his mouth shut, and gasped, "You're not serious!"

Millet shook out his second match and puffed until the pipe bowl glowed warmly, edge to edge. "Of course I'm serious." He jabbed his pipe at Walker. "You like your job?"

"It's a job that has to be done."

Millet smiled and shrugged. "You haven't really answered my question."

Walker, sensing that he had already lost control of the conversation, waved his hands in dismissal. "Well, that is not really important. The fact remains, you did leave Weapons Development at the ... ah ... request of the government."

"Talk on, talk on—you'll get to the point eventually. When you're through, I'd like to show you around the place. I'm very proud of my gardens. You're sort of responsible for them, you know."

Walker set his jaw and bored ahead. "However, at the time you left government service, you were pursuing certain lines of research—"

Millet leaned back and began laughing, his eyes squinted shut. "Walker, don't tell me they want me back!"

It seemed his chance to dominate the discussion again. "I don't think you'd be allowed back."

"Good," said Millet, looking up, his laughter fading into a smile. "I was a bit concerned for a moment."

There was silence in the room. Walker began to wish that he were somewhere else: Millet simply baffled him. He obviously did not care about his disgrace. Walker felt a resurgence of the old resentment.

Millet's face suddenly became very kindly. "Perhaps, as a fellow scientist"—Walker almost winced, and knew, furiously, that his response had shown—"you would be interested in knowing what I've been doing since my unhappy marriage with bureaucracy ended."

It was a welcome gambit, and Walker accepted it eagerly. "I certainly would. One of the reasons I came here, as a matter of fact."

Millet waved his pipe. "Good. Afterwards, you can stop beating around the bush, eh?"

"Yes, of course," mumbled Walker.

"You know," said Millet as he got up and went to a bookcase, "a man's got to earn a living. Do much reading?"

"Not these days. Used to." He scratched a cigarette on the sole of his shoe and inhaled hugely. "Not enough time these days for reading."

Millet reached into the bookcase and came out with a stack of magazines. "Well, that's how I make my living." He handed the stack to Walker. "Writing. Use a pen name of course." He chuckled. "Write everything—always happiest doing science fiction, though."

Walker flipped through the magazines; he looked up. "Obviously, you're doing rather well at it."

"Have been for the last seven or eight years. Lot of fun."

"And this has been your life since you left us?" Walker set the stack of magazines aside. "Seems a waste of genius, somehow."

"As a matter of fact, this is not my life's work. As I said, a man's got to earn a living. This is just a lucrative hobby that pays the way. You see, I've been involved in an expensive research program."

"Ah." Walker sat forward and smashed out his cigarette. "This may be important."

"Oh, it is, it is. But not, I am afraid, in the way you mean."

"You can never tell. What have you been doing?"

"Completing a unified theory of life. Why a crystal grows but isn't alive, why an organism that dies isn't like a crystal. What is the process we call life? What is its relationship to the space-time continuum—"

He said it so casually that Walker was caught off his guard completely. "Are you serious, Millet?" he said.

"Certainly. I expect to publish in about two years."

"Is this an independent effort?"

"Not entirely. Others have contributed. Some pioneers long dead, some among the living." His eyes twinkled. "You see, important things beside the development of weapons of destruction do continue in the scientific world. Did you think that was the end of everything for me, ten years ago?" He shook his head in mock gravity. "It was just the beginning. I _wanted_ out, you see."

"You wanted out?" Walker leaned forward, unwilling to believe what he had heard. "Are you trying to tell me that you _arranged_ your discharge?"

Millet shrugged. "Why, of course. Nobody ever has bothered to ask me about that up to now, but I certainly did arrange it. It wasn't hard, you know. All I had to do was set up some sort of relationship with a so-called security risk, and I was on my way out."

"Why ... that's damned near treason."

"Don't be silly. I had other important things to do. In order to do them—to continue work on the unified life theory—it was necessary for me to contact scientists with whom professional relationships were made illegal by security regulations. The choice was simple; besides, I didn't enjoy the idea of spending my life developing ways of destroying the very thing I wanted most to understand."

"This is fantastic, Millet, utterly fantastic."

"But true nonetheless. Walker, you look like you could use a drink."

"By all means." He stared emptily into the air, thinking about the good old days.

"Walker, a toast," said Millet, holding a tall glass out to him. "To scientific freedom."

Walker blinked. "By all means," he repeated hoarsely, and there was a blurriness to his vision. "To scientific freedom."

They drank, and Walker said: "I feel a bit freer to say what I have come for."

"Shoot," nodded Millet, sipping his drink.

"For security reasons, I'll talk in generalities. But the basic fact is, United Terra is faced with a serious situation. It is most desirable that the research you were conducting when you left us, be continued."

"There are a lot of other capable physicists, both eager to be a part of such activity and blessed with security clearances."

"You know very well, Millet, that this was an unique, almost independent

line of development that comes to a stop in your brain. Besides," and suddenly he felt silly, "the lines of communication for research which might enable us to pick up where you left off, in time—too much time—are somewhat entangled in security." He glared. "Don't laugh, Millet; it's a fact of life which must be faced."

Millet finished his drink and set the glass on an end table. "What you're doing is asking me to come back if you can arrange it."

Walker spread his hands. "Dr. Millet, you have put it in a nutshell."

Millet shook his head, and for the first time since their conversation had started he frowned. "Walker, you know how I feel about developing weapons. I'm just plain opposed to it."

"The soldier is opposed to losing his life, but many have to do just that in the interests of civilization."

"That serious, eh?"

Walker crumpled under the weight of his fear. "That serious," he said wearily.

Millet thoughtfully relit his pipe. "Of course, I'm not at all sure that United Terra is very right in this thing."

"In times like these, that kind of thought is out of bounds," snapped Walker. "Whether you like it or not, you are a part of this culture. You might disapprove of many things in it, but you don't want to see it fall."

Millet puffed gently. "No, I suppose not." Again the frown flickered across his face. "I've been very happy. I don't want my work interrupted. It's too important, Walker."

"Undoubtedly this would more than interrupt your work. It would replace it."

Millet's eyes drifted affectionately about the room. "Most unpleasant." A smile curled his lips. "Frankly, though, I don't think you can clear me again."

"My problem."

"Indeed." A weary resignation seemed to settle over Millet, and Walker suddenly felt very miserable. "I suppose I'll have to accept," Millet said, pulling his pipe out of his mouth and staring unhappily at its trail of smoke.

Walker put his hands flat on his desk and sighed deeply. Some of the pressure, at least, was off; he had managed to cancel part of the Confederation's advantage. Terran industrial strength and technological supremacy, coupled with Millet's genius, might yet equate, or at least circumvent, the frightful weapon the Confederation held.

However, he still had to get Millet back into the government. Though, on the basis of the information he had gained regarding the scientist's motivations, and considering the critical nature of the situation, it shouldn't be too difficult.

He clicked on his video and dialed a secret line into Security Data. Gyrating colors danced across the screen before it went black. He scowled, depressed the cancel button, and dialed again; this time, the black was finally replaced by a recorded image, which said, sweetly out of pouting red lips,

"This line is not cleared for the Security Information you seek. The problem you are handling should be routed through an individual permitted access to this information." The image faded into blackness, the sound track into static.

Walker stared, stupefied. No line, no contact, no source of information had been denied to him in over twelve years.

His door swung open; he came to his feet abruptly, furious that someone should enter unannounced.

He felt sickness strike him like a fist in the stomach: Meriwether, flanked by two security guards, pushed through the door. His voice slashed across the office like a broadsword.

"Walker, I'm shocked. Shocked. And at a time like this...."

Walker pounded his desk. "What the hell is going on? I can't get Security Data, you come marching in here with security men ... what gives?"

Meriwether gestured to the guards, and they came forward and each took one of Walker's arms. "You're out of a job, Walker," snarled General Marcus Meriwether.

"In the name of God, _why_?"

"You know very well. Take him to security detention, Sergeant."

And suddenly he knew. Meriwether stared indignantly when he started laughing. It was a hell of a thing to laugh at, but it was also the most hilarious tragedy he ever hoped to encounter.

Millet. _Security risk._ Untouchable.

Millet would finish his great unified theory, and go down in history as neither Walker nor Meriwether nor the genius who invented the Confederation's neural weapon would. Millet was as safe as he could possibly want to be.

And so was the Interplanetary Confederation.

THE SHE-WOLF

The Project Gutenberg eBook, *Beasts and Super-Beasts*, by Saki

Leonard Bilsiter was one of those people who have failed to find this world attractive or interesting, and who have sought compensation in an "unseen world" of their own experience or imagination--or invention. Children do that sort of thing successfully, but children are content to convince themselves, and do not vulgarise their beliefs by trying to convince other people. Leonard Bilsiter's beliefs were for "the few," that is to say, anyone who would listen to him.

His dabbings in the unseen might not have carried him beyond the customary platitudes of the drawing-room visionary if accident had not reinforced his stock-in-trade of mystical lore. In company with a friend, who was interested in a Ural mining concern, he had made a trip across Eastern Europe at a moment when the great Russian railway strike was developing from a threat to a reality; its outbreak caught him on the return journey, somewhere on the further side of Perm, and it was while waiting for a couple of days at a wayside station in a state of suspended locomotion that he made the acquaintance of a dealer in harness and metalware, who profitably whiled away the tedium of the long halt by initiating his English travelling companion in a fragmentary system of folk-lore that he had picked up from Trans-Baikal traders and natives. Leonard returned to his home circle garrulous about his Russian strike experiences, but oppressively reticent about certain dark mysteries, which he alluded to under the resounding title of Siberian Magic. The reticence wore off in a week or two under the influence of an entire lack of general curiosity, and Leonard began to make more detailed allusions to the enormous powers which this new esoteric force, to use his own description of it, conferred on the initiated few who knew how to wield it. His aunt, Cecilia Hoops, who loved sensation perhaps rather better than she loved the truth, gave him as clamorous an advertisement as anyone could wish for by retailing an account of how he had turned a vegetable marrow into a wood pigeon before her very eyes. As a manifestation of the possession of supernatural powers, the story was discounted in some quarters by the respect accorded to Mrs. Hoops' powers of imagination.

However divided opinion might be on the question of Leonard's status as a wonderworker or a charlatan, he certainly arrived at Mary Hampton's house-party with a reputation for pre-eminence in one or other of those professions, and he was not disposed to shun such publicity as might fall to his share. Esoteric forces and unusual powers figured largely in whatever conversation he or his aunt had a share in, and his own performances, past and potential, were the subject of mysterious hints and dark avowals.

"I wish you would turn me into a wolf, Mr. Bilsiter," said his hostess at luncheon the day after his arrival.

"My dear Mary," said Colonel Hampton, "I never knew you had a craving in that direction."

"A she-wolf, of course," continued Mrs. Hampton; "it would be too confusing to change one's sex as well as one's species at a moment's notice."

"I don't think one should jest on these subjects," said Leonard.

"I'm not jesting, I'm quite serious, I assure you. Only don't do it to-day; we have only eight available bridge players, and it would break up one of our tables. To-morrow we shall be a larger party. To-morrow night, after dinner--"

"In our present imperfect understanding of these hidden forces I think one should approach them with humbleness rather than mockery," observed Leonard, with such severity that the subject was forthwith dropped.

Clovis Sangrail had sat unusually silent during the discussion on the possibilities of Siberian Magic; after lunch he side-tracked Lord Pabham into the comparative seclusion of the billiard-room and delivered himself of a searching question.

"Have you such a thing as a she-wolf in your collection of wild animals? A she-wolf of moderately good temper?"

Lord Pabham considered. "There is Louisa," he said, "a rather fine specimen of the timber-wolf. I got her two years ago in exchange for some Arctic foxes. Most of my animals get to be fairly tame before they've been with me very long; I think I can say Louisa has an angelic temper, as she-wolves go. Why do you ask?"

"I was wondering whether you would lend her to me for to-morrow night," said Clovis, with the careless solicitude of one who borrows a collar stud or a tennis racquet.

"To-morrow night?"

"Yes, wolves are nocturnal animals, so the late hours won't hurt her," said Clovis, with the air of one who has taken everything into consideration; "one of your men could bring her over from Pabham Park after dusk, and with a little help he ought to be able to smuggle her into the conservatory at the same moment that Mary Hampton makes an unobtrusive exit."

Lord Pabham stared at Clovis for a moment in pardonable bewilderment; then his face broke into a wrinkled network of laughter.

"Oh, that's your game, is it? You are going to do a little Siberian Magic on your own account. And is Mrs. Hampton willing to be a fellow-conspirator?"

"Mary is pledged to see me through with it, if you will guarantee Louisa's temper."

"I'll answer for Louisa," said Lord Pabham.

By the following day the house-party had swollen to larger proportions, and Bilsiter's instinct for self-advertisement expanded duly under the stimulant of an increased audience. At dinner that evening he held forth at length on the subject of unseen forces and untested powers, and his flow of impressive eloquence continued unabated while coffee was being served in the drawing-room preparatory to a general migration to the card-room.

His aunt ensured a respectful hearing for his utterances, but her sensation-loving soul hankered after something more dramatic than mere vocal demonstration.

"Won't you do something to _convince_ them of your powers, Leonard?" she pleaded; "change something into another shape. He can, you know, if he only chooses to," she informed the company.

"Oh, do," said Mavis Pellington earnestly, and her request was echoed by nearly everyone present. Even those who were not open to conviction were perfectly willing to be entertained by an exhibition of amateur conjuring.

Leonard felt that something tangible was expected of him.

"Has anyone present," he asked, "got a three-penny bit or some small object of no particular value--?"

"You're surely not going to make coins disappear, or something primitive of that sort?" said Clovis contemptuously.

"I think it very unkind of you not to carry out my suggestion of turning me into a wolf," said Mary Hampton, as she crossed over to the conservatory to give her macaws their usual tribute from the dessert

dishes.

"I have already warned you of the danger of treating these powers in a mocking spirit," said Leonard solemnly.

"I don't believe you can do it," laughed Mary provocatively from the conservatory; "I dare you to do it if you can. I defy you to turn me into a wolf."

As she said this she was lost to view behind a clump of azaleas.

"Mrs. Hampton--" began Leonard with increased solemnity, but he got no further. A breath of chill air seemed to rush across the room, and at the same time the macaws broke forth into ear-splitting screams.

"What on earth is the matter with those confounded birds, Mary?" exclaimed Colonel Hampton; at the same moment an even more piercing scream from Mavis Pellington stampeded the entire company from their seats. In various attitudes of helpless horror or instinctive defence they confronted the evil-looking grey beast that was peering at them from amid a setting of fern and azalea.

Mrs. Hoops was the first to recover from the general chaos of fright and bewilderment.

"Leonard!" she screamed shrilly to her nephew, "turn it back into Mrs. Hampton at once! It may fly at us at any moment. Turn it back!"

"I--I don't know how to," faltered Leonard, who looked more scared and horrified than anyone.

"What!" shouted Colonel Hampton, "you've taken the abominable liberty of turning my wife into a wolf, and now you stand there calmly and say you can't turn her back again!"

To do strict justice to Leonard, calmness was not a distinguishing feature of his attitude at the moment.

"I assure you I didn't turn Mrs. Hampton into a wolf; nothing was farther from my intentions," he protested.

"Then where is she, and how came that animal into the conservatory?" demanded the Colonel.

"Of course we must accept your assurance that you didn't turn Mrs. Hampton into a wolf," said Clovis politely, "but you will agree that appearances are against you."

"Are we to have all these recriminations with that beast standing there ready to tear us to pieces?" wailed Mavis indignantly.

"Lord Pabham, you know a good deal about wild beasts--" suggested Colonel Hampton.

"The wild beasts that I have been accustomed to," said Lord Pabham, "have come with proper credentials from well-known dealers, or have been bred in my own menagerie. I've never before been confronted with an animal that walks unconcernedly out of an azalea bush, leaving a charming and popular hostess unaccounted for. As far as one can judge from _outward_ characteristics," he continued, "it has the appearance of a well-grown female of the North American timber-wolf, a variety of the common species _canis lupus_."

"Oh, never mind its Latin name," screamed Mavis, as the beast came a step or two further into the room; "can't you entice it away with food, and shut it up where it can't do any harm?"

"If it is really Mrs. Hampton, who has just had a very good dinner, I don't suppose food will appeal to it very strongly," said Clovis.

"Leonard," beseeched Mrs. Hoops tearfully, "even if this is none of your doing can't you use your great powers to turn this dreadful beast into something harmless before it bites us all--a rabbit or something?"

"I don't suppose Colonel Hampton would care to have his wife turned into a succession of fancy animals as though we were playing a round game with her," interposed Clovis.

"I absolutely forbid it," thundered the Colonel.

"Most wolves that I've had anything to do with have been inordinately fond of sugar," said Lord Pabham; "if you like I'll try the effect on this one."

He took a piece of sugar from the saucer of his coffee cup and flung it to the expectant Louisa, who snapped it in mid-air. There was a sigh of relief from the company; a wolf that ate sugar when it might at the least have been employed in tearing macaws to pieces had already shed some of its terrors. The sigh deepened to a gasp of thanks-giving when Lord Pabham decoyed the animal out of the room by a pretended largesse of further sugar. There was an instant rush to the vacated conservatory. There was no trace of Mrs. Hampton except the plate containing the macaws' supper.

"The door is locked on the inside!" exclaimed Clovis, who had deftly turned the key as he affected to test it.

Everyone turned towards Bilsiter.

"If you haven't turned my wife into a wolf," said Colonel Hampton, "will you kindly explain where she has disappeared to, since she obviously could not have gone through a locked door? I will not press you for an

explanation of how a North American timber-wolf suddenly appeared in the conservatory, but I think I have some right to inquire what has become of Mrs. Hampton."

Bilsiter's reiterated disclaimer was met with a general murmur of impatient disbelief.

"I refuse to stay another hour under this roof," declared Mavis Pellington.

"If our hostess has really vanished out of human form," said Mrs. Hoops, "none of the ladies of the party can very well remain. I absolutely decline to be chaperoned by a wolf!"

"It's a she-wolf," said Clovis soothingly.

The correct etiquette to be observed under the unusual circumstances received no further elucidation. The sudden entry of Mary Hampton deprived the discussion of its immediate interest.

"Some one has mesmerised me," she exclaimed crossly; "I found myself in the game larder, of all places, being fed with sugar by Lord Pabham. I hate being mesmerised, and the doctor has forbidden me to touch sugar."

The situation was explained to her, as far as it permitted of anything that could be called explanation.

"Then you really did turn me into a wolf, Mr. Bilsiter?" she exclaimed excitedly.

But Leonard had burned the boat in which he might now have embarked on a sea of glory. He could only shake his head feebly.

"It was I who took that liberty," said Clovis; "you see, I happen to have lived for a couple of years in North-Eastern Russia, and I have more than a tourist's acquaintance with the magic craft of that region. One does not care to speak about these strange powers, but once in a way, when one hears a lot of nonsense being talked about them, one is tempted to show what Siberian magic can accomplish in the hands of someone who really understands it. I yielded to that temptation. May I have some brandy? the effort has left me rather faint."

If Leonard Bilsiter could at that moment have transformed Clovis into a cockroach and then have stepped on him he would gladly have performed both operations.